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Proposed Marketing Agreement for Package Bees and Queens

IN accordance with the provisions of the Agricultural Adjustment Act, this tentative marketing agreement has been prepared and all shippers of package bees and queens in the United States should give careful consideration to its contents.

At a meeting in New Orleans, July 18th, the shippers of package bees and queens from several southern states drew up a preliminary code of ethics designed to place the package and queen industry on a sound basis. Several weeks after the meeting Mr. Thomas Atchison, State Apiary Inspector of Alabama, and Mr. W. E. Harrell, Hayneville, Ala., personally discussed the provisions of the Marketing agreement (code) with officials in the Agricultural Adjustment Administration and in the Department of Agriculture, with the result that it was decided to rewrite the document.

Although the State of California was not represented at the New Orleans meeting, the Pacific Coast shippers have since had an opportunity to study the New Orleans document to which they have given tentative approval and suggested several changes. An attempt has therefore been made to incorporate as nearly as possible the wishes of both the southern and the California shippers.

The shippers who have had an opportunity to acquaint themselves with the New Orleans document will find many changes in the revision. It should be distinctly understood that in making these changes the Bee Culture Laboratory of the Bureau of Entomology has acted, at the request of the shippers, merely as a coordinating agency. The shippers themselves must assume the responsibility of passing on the present document and incorporating whatever changes are called for, keeping in mind, of course, that whatever they present may be approved, disapproved, or amended by the Agricultural Adjustment Administration.

As soon as all interested parties have had an opportunity to study the tentative agreement and such changes as seem desirable have been incorporated, it will be necessary for representatives of the shippers to submit the document to the Agricultural Adjustment Administration with an application for a formal hearing at Washington. This hearing will be open to the public and all groups and parties will be given an opportunity to be heard.

Copies of the tentative agreement are being sent to all bee journals in the hope that it will be published in full to acquaint the entire beekeeping industry with its contents. Copies will be available through Mr. Atchison for the southern shippers and through Dr. J. E. Eckert, Secretary, California Bee Breeders' Association, Davis, for the California shippers.

Jas. I. Hambleton,
Sr. Apiculturist.

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PROPOSED MARKETING AGREEMENT RELATING TO THE MARKETING OF PACKAGE BEES AND QUEENS PRODUCED IN THE UNITED STATES

This agreement entered into by and between the Secretary of Agriculture of the United States of America and each of the shippers of package bees and queens, or both, produced in the United States signing this agreement, and by and between each of the shippers one with the other, WITNESSETH THAT,

WHEREAS, the Congress by the Agricultural Adjustment Act of May 12, 1933, as amended, has declared that a national economic emergency exists due to the disparity between the price of agricultural and other commodities; and,

WHEREAS, price cutting and other detrimental marketing practices and activities now exist in the marketing of package bees and queens, the market prices of which have been unduly depressed; and,

WHEREAS, the parties hereto wish to enter into a marketing agreement pursuant to Section 8, Subsection (2) of the Agricultural Adjustment Act for the purpose of correcting the conditions now obtaining in the marketing of package bees and queens; and,

WHEREAS, package bees and queens produced in the United States and marketed by the shippers, parties hereto, are in the current of intra-state commerce and in interstate and foreign commerce, all of which are inextricably intermingled;

NOW, THEREFORE, in consideration of the premises and of the mutual promises herein contained, and of the following representations of the shippers;

THAT the shippers, parties hereto, represent a large percentage of the package bees and queens produced in the United States; and

THAT this agreement is not designed to promote monopolies nor will it be availed of for such purpose; and

THAT the provisions of this agreement will not eliminate nor suppress small enterprises nor discriminate against them;

The parties hereto agree:

ARTICLE I—DEFINITIONS.

As used in this agreement the following words shall be defined as follows:

(a) **"SECRETARY"** means the Secretary of Agriculture of the United States, or his duly authorized representative or representatives.

(b) **"SHIPPERS"** means and includes such persons, firms, corporations, or associations, signatory to this agreement, engaged wholly or in part in the business of producing and/or shipping package bees and/or nuclei and/or queens in intra-state, interstate, or foreign commerce.

(c) **"ACT"** means the Agricultural Adjustment Act, approved May 12, 1933, as amended.

(d) **"COMMITTEE"** means the Control Committee provided for in Article II.

(e) **"MANAGING DIRECTOR"** means the Managing Director appointed by the Committee as provided for in Article II, Section 3.

(f) **"PACKAGE BEES"** means bees in a shipping container with or without a queen.

(g) **"QUEEN"** means an untested, fertile queen in a mailing cage with attendant workers.

(h) **"NUCLEUS"** means a container with one (1) frame, two (2) pounds of bees, and a fertile queen.

ARTICLE II—CONTROL COMMITTEE AND POWERS.

SECTION 1. A control committee shall be established which shall have the powers, duties and functions hereinafter set forth and any further powers necessarily incidental thereto. The Committee shall have the further power to adopt such rules and regulations and issue such orders and employ a Managing Director and such other persons as may be necessary to effectuate the purpose of this agreement. All decisions of the Committee shall be made with the least possible delay.

SECTION 2. The Committee shall consist of five (5) members to be selected as follows: one (1) member shall be selected by the signatory shippers of Alabama, one (1) member shall be selected by the signatory shippers of California, one (1) member shall be selected by the signatory shippers of Louisiana, and one (1) member shall be

selected by the signatory shippers of Texas. The fifth (5th) member shall be selected by the four (4) aforementioned members, from the United States at large exclusive of the States of Alabama, California, Louisiana, and Texas. Any vacancy in the membership of the Committee shall be filled in the same manner as originally selected.

(a) All members of this Committee are subject to the approval of the Secretary and any or all of them may be removed at his discretion for just cause.

(b) Each member of the Committee shall file with the Secretary on or immediately after the effective date of this agreement, his acceptance of his appointment and his Post Office and telegraphic address.

(c) The members of the Committee shall be selected each year prior to March 1st and shall serve until August 15th of the year next following the date of their selection, and until their successors are selected.

(d) Members of the Committee shall serve without compensation but shall be allowed legitimate expenses incurred in connection with their official duties as defined by this agreement.

SECTION 3. The Committee, with the approval of the Secretary, shall appoint a Managing Director for the Committee, who shall not be a shipper, or be affiliated with or employed by any shipper.

(a) The Committee shall, in addition to the other powers herein specifically conferred, be empowered to fix the salary and duties of the Managing Director.

ARTICLE III—PRICES.

SECTION 1. The shippers signatory to this agreement agree that the schedule of prices set forth in ARTICLE III, SECTION 2, shall be the minimum prices at which they will sell or offer for sale package bees, nuclei, and queens on the day following the effective date of this agreement, and that said schedule of prices shall remain in effect until amended as authorized in ARTICLE VIII, SECTION 3.

SECTION 2.

(a) The minimum retail prices for package bees, nuclei and queens shall be as follows:

Queens—Postpaid

1-9	10-24	25-49	50 or more
$0.85 ea.	$0.80 ea.	$0.75 ea.	$0.70 ea.

After June 1st

$0.70 ea.	$0.65 ea.	$0.55 ea.	$0.50 ea.

Package Bees with Queen—Express Collect
Two Pound Packages

1-9	10-49	50 or more
$2.65 each	$2.55 each.	$2.45 each

Three Pound Packages

$3.40 each	$3.30 each	$3.20 each

Package Bees with Queen—Via Parcel Post
Two Pound Packages

1-9	10-49	50 or more
$2.85 each	$2.75 each	$2.65 each

Three Pound Packages

$3.60 each	$3.50 each	$3.40 each

Nuclei

1 frame with 2 pounds bees and queen

$2.65 each for 1-9
$2.55 each for 10-49
$2.45 each for 50 or more

For each additional frame add eighty (80) cents.

For additional pound of bees add eighty (80) cents.

The price of tested queens shall be double the price of untested queens irrespective of the month.

The prices of untested queens shall be subtracted from the prices of package bees and nuclei sold without queens.

The price of two-pound packages and two-pound nuclei after June 1st shall be fifty (50) cents less per unit and the price of three-pound packages and nuclei shall be sixty (60) cents less per unit.

(b) The minimum wholesale prices for package bees, nuclei, and queens shall be 15 percent less than the retail prices.

SECTION 3. The wholesale prices shall be granted only to.

(a) Wholesale supply houses handling bee supplies, bees, and queens,

(b) County and State or other recognized beekeepers associations buying in lots of 500 or more package bees, nuclei, or queens.

(c) Mail order houses handling bees, queens, and bee supplies.

(d) Signatory shippers.

SECTION 4. A minimum extra charge of twenty (20) cents per package shall be charged for package bees sent via parcel post, to take care of the extra cost of the special cage and damages in transit which are borne by the shipper. In the event the Postal Regulations are changed making it unnecessary to use double screen cages, the minimum extra charge shall be but ten (10) cents per package

SECTION 5. Shippers shall not allow over twenty (20) cents per cage for used cages that are returned prepaid.

SECTION 6. All prices are to be on a cash basis. Shippers shall not allow any discounts, commissions, or rebates, extra packages or queens, or grant any special concessions whatsoever that would reduce the prices below those listed with the Secretary, except as provided for. Prices are in United States currency and buyers in foreign countries must pay any exchange that may exist on their money.

ARTICLE IV—TRADE PRACTICES

In order to further the interests of the shippers, to increase the efficiency of the shippers' operations, to raise the standards of the industry, and to promote the confidence of buyers of package bees and queens, each shipper, his officers, employees, or agents agrees:

SECTION 1. Shippers agree to replace without charge all queens which arrive dead or in a deformed or abnormal condition. Duplicate queens are to be placed in the United States mail within twenty-four (24) hours after notification by the buyer, provided, the dead or abnormal queens are placed in the United States mail for return within twenty-four (24) hours after receipt. As an alternative to receiving duplicate queens, the buyer may demand full refund.

SECTION 2. Shippers agree to replace with packages of the same weight, with queens, all packages in shipments of less than five (5) packages that are received with seventy-five (75) percent or more of the bees dead, transportation to be paid by the shipper. Queens in good condition in damaged packages, which can be used by the buyer, are to be paid for by the buyer at shipper's current prices. Live queens which cannot be used by the buyer are to be returned to the shipper, within twenty-four (24) hours in original queen-cages.

SECTION 3. Shippers agree, in shipments of less than five (5) packages, to replace with packages of the same weight, but without queens, packages which are received with twenty-five (25) to seventy-five (75) percent of the bees dead but with queens still alive. Transportation to be paid by the shipper. In shipments of five (5) or more packages arriving in bad condition, the buyer shall salvage the living bees to the best of his ability, making as many full weight packages as possible, and the shipper shall make adjustment pound for pound for the difference. Any living queens that are not used shall be returned to the shipper within twenty-four (24) hours, unless the buyer can use any of the extra queens at the regular price.

SECTION 4. In no case shall the shipper be liable for damage in transit.

SECTION 5. When the shipper has accepted an order for package bees and/or queens and received the money therefor with the date of delivery specified, and the buyer does not receive said packages and/or queens within five (5) days from the date specified for arrival at destination, the buyer shall have the right to cancel said order by wire and the shipper shall return to the buyer full payment for said packages and/or queens.

SECTION 6. As a protection against loss of queens in transit, the shipper may include one extra queen in orders of from one (1) to twenty-five (25) packages and/or queens, and one (1) additional queen for each additional twenty-five (25) packages and/or queens shipped, but in no case shall he give, without charge, more extra queens than in this ratio.

SECTION 7. The shipper shall allow enough over-weight at the time of making up packages so that a two (2) pound package shall contain two (2) pounds of live bees on arrival at destination, and a three (3) pound package, three pounds, etc.

SECTION 8. Shippers shall not make or cause to be made or published any false, untrue, misleading, or deceptive statement by the way of advertising, or otherwise relating to themselves or any shipper.

SECTION 9. All queens, other than those in packages or nuclei, are to be sent postpaid by ordinary mail unless the buyer specifies express or air mail, in which case the buyer is to pay the transportation on the shipments in excess of what the ordinary parcel post charges would have been.

SECTION 10. No shipments of bees or queens are to be made from apiaries in which American foulbrood is known to exist.

SECTION 11. The same provisions with respect to weight of bees, rebates, etc., which apply to package bees shall apply equally to nuclei.

ARTICLE V—ADMINISTRATION

SECTION 1. Each shipper shall maintain a system of accounting which shall be satisfactory to and subject to the examination of the Secretary. The shippers shall, from time to time, furnish information to the Secretary on and in accordance with forms to be supplied by him. All information obtained by or furnished to the Secretary pursuant to this section shall remain the confidential information of the Secretary and shall not be disclosed by him except upon lawful demand made by the President, by either house of the Congress, or any committee thereof, or by any court. The Secretary, however, may combine information obtained from the shippers in the form of general statistical studies or data.

SECTION 2. Each shipper shall report to the Managing Director his or its total receipts, total shipments, and amount of unfilled orders, and such other information necessary to the enforcement of this agreement requested by the Managing Director on printed forms provided for this purpose, and to be mailed as of the 1st and 15th of each month, during April, May, June, and July, and thereafter on or before the 5th of each consecutive month through and including March of each year.

(a) The Managing Director shall not disclose to the Committee or to any person other than the Secretary, the information required in the preceding paragraph relating to any shipper, but he shall compile a consolidated report of the same, which information shall be simultaneously mailed to all parties to this agreement.

SECTION 3. In the event a shipper makes an adjustment with a buyer which modifies the price given on an original invoice, the shipper shall immediately report such adjustment and place all facts before the Managing Director. If such adjustments occur so often that the Managing Director doubts that such shipper is acting in good faith, then and in that event the Managing Director shall notify said shipper that no such settlement or price adjustment can be made again by that shipper without first submitting same to the Committee, and failure to comply with the finding of the Committee shall be deemed a violation of this Marketing Agreement.

SECTION 4. If it shall come to the knowledge of any shipper that any other shipper is violating any of the terms or conditions of this Agreement, the party having such knowledge shall notify the Managing Director of such violation by a written statement containing the charges and all available substantiating evidence, and/or in the event such information shall come to the knowledge of the Managing Director from any other reliable source, he shall notify the Committee and it shall be the duty of the Committee and/or the Managing Director to investigate the charges. The Managing Director and the Committee shall call upon the shipper, whose transactions are under investigation, to furnish a statement of the facts under oath. After due investigation, if it is the opinion of the Managing Director and the Committee that the charges are true, it shall notify the member so violating the rules of its findings and request that such violation be discontinued. If the party continues in the violation, the Managing Director and the Committee shall notify the Secretary, who may take such action as he deems necessary, including the right of the Secretary to cancel this contract with respect to said party, PROVIDED that nothing contained in this paragraph shall be construed in derogation to the rights of the Secretary under the Act nor in derogation of the rights of any person to be heard when such right of hearing is granted under the Act or otherwise by law.

SECTION 5. In aid of any investigation with respect to the charges against any shipper, each of the shippers agrees that the Managing Director and the Committee may designate a reputable firm of public accountants to examine during the usual business hours the books and records of the shipper whose practices are under investigation, and report upon the matters that shall have been specified in the Managing Director's and the Committee's direction

to such accountants. Said direction to the accountants must specifically set forth the matters upon which a report is required and said accountants shall not reveal to the Committee any other matters whatsoever disclosed by said examination, except in case the accountants discover violations of this Agreement other than those which they are specifically investigating, then in that event, they shall be required to report these violations as well to the Committee and the Managing Director.

ARTICLE VI—ASSESSMENTS

SECTION 1. Each shipper agrees to pay his pro-rata share of the costs of administering and carrying out this agreement. The Committee is authorized and empowered to levy and to collect all fees and assessments necessary to meet all the costs of administering and carrying out this agreement, but the levy of such assessments and fees shall be uniform and equitable in proportion to the volume of package bees and queens handled by each shipper.

SECTION 2. The shippers severally agree to advance their pro-rata share (based on the volume of package bees and queens handled by them during the year last past) of the amount estimated by the Committee as being the amount necessary to begin the operation of this Agreement.

SECTION 3. Each shipper agrees to file with the Managing Director, within two weeks after the effective date of this Agreement, a sworn statement showing the volume of package bees and queens marketed by him during each of the three (3) years last past.

SECTION 4. All such fees and assessments shall be fixed and levied and collected only for the purpose of defraying the actual cost of beginning the operation of this Agreement and administering and carrying out its provisions. In the event and excess of money is collected by such fees and assessments during any year, such excess shall be refunded at the end of that year to the shippers which paid said money, and such refunds shall be in proportion to the sums each shipper has contributed.

SECTION 5. Each shipper agrees to and hereby is bound by all acts and decisions of the Committee done or made in conformity with the provisions of this Agreement, provided, however, that he shall have a right of appeal to the Secretary as provided herein.

ARTICLE VII—LICENSES

SECTION 1. Each shipper hereby applies for and consents to a license to be issued by the Secretary applicable to all shippers of package bees and queens, in the United States, in order better to effectuate the purposes of this Agreement and Act.

ARTICLE VIII—DURATION AND AMENDMENTS

SECTION 1. Effective date and execution.

(a) This Agreement shall be effective at such time as the Secretary may declare above his signature attached hereto.

(b) This Agreement may be executed in multiple counterparts which when signed by the Secretary shall constitute, taken together, one and the same instrument as if all such signatures were contained on one original.

(c) After this Agreement takes effect, any shipper in the United States may become a party to this Agreement if a counterpart thereof is executed by him and the Secretary. This Agreement shall take effect as to such shippers at such time as the Secretary may declare above his signature attached to such counterpart.

SECTION 2. Duration.

(a) This Agreement shall cease to be in effect immediately upon termination of the Act or whenever the Secretary shall proclaim that the National economic emergency in relation to package bees and queens has ended, or whenever the Secretary declares this Agreement to be terminated, and the Secretary may at any time by press release or any notice, as the Secretary may determine, terminate this agreement.

(b) The Secretary may, for good cause shown, at any time terminate this Agreement as to any party signatory hereto, by notice in writing deposited in the registered mails and addressed to such party at the address of such party on file with the Secretary.

(c) The benefits, privileges, and immunities conferred by virtue of this Agreement shall cease upon its termination, except with respect to acts done prior thereto. and the benefits, privileges, and immunities conferred by virtue of this Agreement upon any party signatory hereto, shall cease at its termination as to such party except with reference to acts done prior thereto.

SECTION 3. Amendments.

This Agreement may be amended in any respect by agreement between the Secretary and the shippers who handled not less than eighty (80) percent of the aggregate package bees and queens shipped in the United States during the three (3) years last past.

ARTICLE IX—MISCELLANEOUS

SECTION 1. The invalidity of any of the stipulations or provisions of this Agreement shall not affect in any way the validity or effect of other stipulations and provisions hereof.

IN WITNESS WHEREOF, the shippers, acting under the provisions of the Agricultural Adjustment Act, and not otherwise, for the purposes and within the limitations herein contained, have hereunto set their respective hands and seals.

The Shadyside Apiaries,

By_____

NOW, THEREFORE, the Secretary of Agriculture acting under the provisions of the Agricultural Adjustment Act for the purposes and within the limitations therein contained, and not otherwise, does hereby execute this Agreement under his hand and the official seal of the Department of Agriculture, in the City of Washington, District of Columbia, on the_____ day of _____ 1933.

Pursuant to the provisions hereof, I hereby declare this Agreement to be effective on and after the_____ Eastern Standard Time 1933.

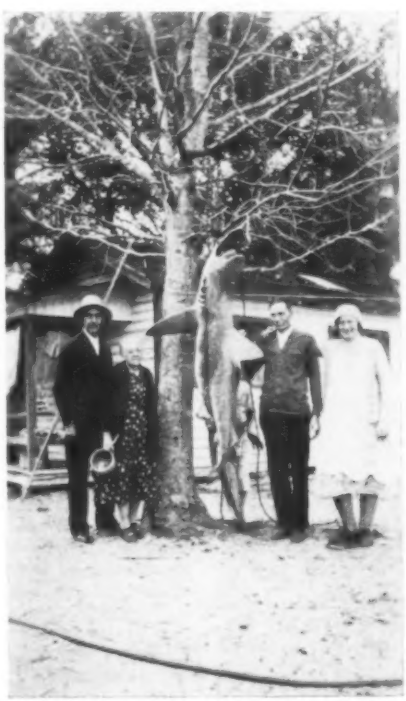
_____

Secretary of Agriculture.

September 15, 1933.

THE HUMAN PUZZLE

Who Is He?



Last month's puzzle brought an increase in guesses, the largest number so far since we started this contest. Nothing to do but make it a bit harder this time. So, take a good look at the gentleman on the left, with the straw hat, and tell us who he is. It might be fair to say that the picture was taken in Florida and that the lady by his side is Mrs. —— whoa—you tell us! Get out the post card and maybe you can add to your bee library as we will send a nicely bound book on beekeeping to the first three who guess correctly.

Last Month's "Who Is He?"

N. E. France, veteran beekeeper of Platteville, Wisconsin, formerly Inspector of Apiaries for that state, and a Master Farmer, under honor conferred by his State University.

Guesses were received from Minnesota, Pennsylvania, Wisconsin, Iowa, Illinois, Missouri, New York, California, Louisiana, New Jersey, Kansas, and Ohio. It certainly pays to be well known.

There were several mistakes—C. E. Hurlbut, of Ohio, mistook Mr. France for Emile J. Baxter of Nauvoo, Ill., W. H. Eastman, of Kansas, thought it Geo. S. Demuth, Editor of Gleanings in Bee Culture; C. T. McKnight, of Louisiana, named Herman Rauchfuss, of Englewood, Colorado; and Wallace Smith, of Minnesota, thought it A. L. Kildow, Apiary Inspector of Illinois.

The three winners were: Mathilde Candler, Cassville, Wisconsin; Leo Bentz, Woodstock, Illinois; and Ivan Whiting, Roscoe, Illinois.

"Death Camas" Cause of Bee Mortality

Honey producers of the Minidoka project, after several years of fruitless search, have found a wild lily plant,commonly called "death camas," to be the cause of hitherto unexplained mortality of honeybees during springtime and early summer. The bees have returned from flights after honey and have died in their hives sometimes in alarming numbers.

At the last meeting of the Mini-Cassia Honey Producers' Association, Frank Beach brought in some plants of the camas and they were sent to Moscow and to the government apiary at Laramie, Wyoming. Word came back to C. C. Barlow, Secretary of the Association, that the death camas was the cause of the bee mortality. Now beekeepers are eradicating the plant.

Glenn Perrins,
Utah.

He who desires to search further after knowledge than the nature of man is capable, his glory will oppress and crush him; as honey taken immoderately bursts the eater, so this enquirie the understanding of him that cannot compass it.—Culled from an early writer by W. H. Hull.

"Scrap" the Deep Comb Hives?

The editors of this magazine have long been deep-frame, large-hive enthusiasts, not through theory alone but through years of practical use of different sizes and types of hives which has shown to us the desirability of the large hive and the deep frame.

And yet, with our enthusiasm, we have always been careful to recognize the fact that beekeepers are individualists and that many may succeed by their methods with other sizes of hives. Moreover, there is great expense in changing of hives and of methods which is bound to be a deterrent.

Imagine our surprise, therefore, to find in the September number of our contemporary, Gleanings in Bee Culture, an article by Dr. E. F. Phillips on Beekeeping in Soviet Russia in which he says—

> "At least half of the frame hives in Soviet Russia are Dadant—Blatt hives, but if I had the responsibility for good results with the forty million colonies which they hope to possess, I should scrap the present frames, reduce the hive bodies to about Langstroth depth and use two hive bodies throughout the year. Such a terrific sacrifice would be justified in an effort to insure safe and profitable beekeeping and would save untold labor in the end."

One wonders how many hives of the deep frame type or even of the Langstroth type the good doctor has manipulated before he finally determined to his satisfaction that he was warranted in one full swoop to doom to oblivion, hives of every other type but the Langstroth in two story, or rather of **about** Langstroth depth as he says in his article.

We do not fail to recognize that hundreds of beekeepers in this country use the Langstroth hive in the two stories, are perfectly satisfied with their results, nor do we recommend their "scrapping" their equipment for the deeper frame; at least not without a trial of the deeper equipment to determine to their own satisfaction that the change is warranted.

Nor do we fail to commend Dr. Phillips on his championing the larger hive by the use of a double brood chamber. It is a step in the right direction. Too bad he hasn't had wide experience with the deep frame hive in actual practice, so that he could go all the way and become a deep frame as well as a large hive enthusiast.

But we have had the experience. And that is why we are bold to say that we would **not** scrap those Dadant-Blatt hives, there would **not** be an untold saving of labor by so doing, and, furthermore, there would undoubtedly **not** be an increase in the honey crop.

Naturaliy, we may be accused of favoritism for the deep frame hive since some types of this hive bear our name. Yet we are willing to leave the question to the judgment of the commercial beekeepers who have had experience with the two types of hives side by side in sufficient quantities to warrant a thorough trial.

Our arguments for the deep frame large hive are too well known by our readers to necessitate their repetition in these columns now. They are based on actual practice.

As a little reminder that beekeepers are alert to such items as production, I have before me a report of the honey produced in 1933, up to August 20 in apiaries containing 1673 colonies of bees in the northern sections of the United States, by a rather successful apiarist.

1406 of these colonies are in two-story Langstroth hives, and 267 in the deep-comb large hives with shallow supers. The per colony average in the deep-comb hives was 230 pounds, and that of the Langstroth two-story, 117 pounds. The average of the three **best** Langstroth yards was 181 pounds per colony. And this apiarist **was** a dyed-in-the-wool two-story Langstroth hive man.

But as we have said before, dear reader, try it for yourself. Don't let us convince you on any **big** change without a trial. And so we would also say to the Soviet Union.

Honey Producers' Code

On page 404 is the announcement of a meeting called by James Gwin to discuss the adoption of a honey producers' code.

A worthy effort, but only feasible if individuals get behind their local and state organizations so as to make the representation really representative. We urge our readers to give special attention to this call. Without support of the rank and file no representative meeting can be a success.

Better Bees

In view of the immense amount of work that is being conducted in the horticultural field toward the breeding of new and better fruit, we regret that more is not attempted in the breeding of bees. Every encouragement should be offered to the few projects which are under way, but since so much must be done to secure outstanding results more should be attempted.

To mention only a few of the stations where extensive fruit breeding is being done, we would call attention to the thousands of seedlings which Prof. Hansen has grown in South Dakota in an effort to get hardier fruits, and the immense number fruited at Geneva, New York in an effort to get better quality. Similar work is under way in Iowa and several other states, as well as at the stations conducted by the United States government.

Livestock breeding has been carried on extensively for many years and the improvement that has come has been remarkable. Animals have been developed for a specific purpose. Better milk production, better meat production and heavier wool production have brought millions to the livestock farmers as a result of this work.

There is every reason to believe that careful breeding would bring the same results to the beekeeper. Disease resistant bees, better honey gatherers and hardier bees are all possible. To get such results it will be necessary to carry on breeding on a scale comparable to that which has brought success in other fields. Haphazard experiments are not likely to succeed very far. It will require trained men who are well acquainted with the science of genetics and who have the necessary facilities for careful work.

Adulteration of Honey

Those of our readers who are not familiar with the magazines devoted to bees in the days gone by may be surprised to learn that it was the adulteration of honey which brought the price to the present low point. For a number of years after extracted honey came into use the price ruled high. There was a liberal demand which readily consumed the output at 18 to 25 cents per pound. This permitted good profits to the beekeepers, even though they had not yet perfected the system of management which secured the present day yields. When glucose came on the market it offered a great opportunity for unscrupulous dealers and they began mixing it with honey and selling it as pure honey. This practice became so general as to destroy public confidence in honey and led to the general substitution of other sweets. This public confidence thus lost has never been regained and prices of extracted honey have remained low. The pure food law stopped adulteration but the damage was done.

The Codes

We wish to call every reader's attention to the code of the package bee shippers and queen breeders printed elsewhere in this issue. If there are any objections, now is the time to express them as once the code is adopted every shipper will be bound by it and will have no choice in the matter.

Codes for related industries are also in prospect and similar codes for bee supply manufacturers and honey packers are being formulated. Now is the time for every beekeeper to think of the effect that the codes will have upon him as an individual and to plan accordingly.

No longer are we to be permitted to act individually without regard to our neighbors. Price wars should be a thing of the past. In the future the man who can give better service and better quality is the man who is likely to prosper.

Plant Sweet Clover

Mr. Harold T. Kelly, of Forest Glen, Maryland, sends us the following clipping from a Washington paper:

"Officials estimate that about 45,000,000 acres which have been planted for cotton, wheat, corn and other basic commodities will grow something else next year or lie idle. The use to which they will be put is adding to the already plentiful worries of the Farm Administration.

Dangers in Pasturage

"It would cause another violent upheaval if the land was turned back to pasture, to glut markets already oversupplied with milk and its products, livestock and poultry. Dairymen and cattlemen have presented resolutions viewing the possibility with alarm.

"Long ago farm officials foresaw the danger and drew specific regulations covering the use to which former wheat acres may be put. They prohibit the planting of this land to any nationally produced food crop or commodity.

Cutting Other Markets

"Interpretation and enforcement of these rules, however, are something else. There is nothing to prevent the farmer who takes part in the wheat campaign, or those in the making for cotton, corn or other commodities, from growing foodstuffs for his home consumption. He may benefit his own position, but this in turn would reduce his purchase of crops grown by other farmers."

Mr. Kelly adds: "How about action of the beekeeping interest in urging that this land be sown in sweet clover, and allowed to stand until the land can be used for its regular intent?"

This is correct. The sweet clover will enrich the land, keep it from erosion and will be a great benefit to beekeepers.

Recommend it to your friends.

Packed Hives

The launching of a new hive by a firm not previously known in the bee supply business calls attention to a subject which attracted wide attention in former years. So few double walled hives have been sold in recent years that most of the established supply firms have stopped pushing them as unprofitable. The cost is the principal objection for nearly every beekeeper of experience speaks favorably of them.

There is still some question as to whether a double walled hive may not be cheaper than the single walled hive and a winter case. However, in this region winter cases of wood are no longer used so commonly as they once were. Tar paper cases and cheaper wrappings have largely displaced them in many neighborhoods. In the writer's experience double-walled hives with a super of dry leaves and an open escape hole to permit absorbtion of the moisture have given excellent results in wintering. Those with sealed covers over the brood nest have been very disappointing.

Watch the Stores

Every year many colonies of bees are lost through insufficient or poor quality stores. It is important that any feeding which may be necessary be done as early as possible. If honeydew is present it should be removed and the bees be fed sugar syrup instead. If those with good honey do not have enough feed them liberally and get them quieted down again as quickly as possible.

Loss of Queens

Safe arrival of package bees is generally reported this season but the usual loss of queens occurred through supersedure after they were received. Just where the fault lies in this annual loss of queens shipped with packages nobody seems to know for sure but it is a problem that must be solved before the package business is on a safe footing. As we have stated in these columns before the fear of supersedure of queens soon after arrival is all that prevents much larger purchases of package bees on the part of many northern buyers.

The loss of bees in transit is now so small in comparison with former times that no one doubts that packages will come through safely. Since so many other problems in connection with such shipment have been solved, it would seem that the problem of queen supersedure might be solved also.

Color of Honey

In view of all the agitation we have had regarding color in the grading of honey, it is interesting to hear that Canada's representative of the Honey Export Association states that the British importer is not much concerned about color. He is quoted in the Canadian Beekeeper as saying that the most important consideration is texture, followed by flavor and finally by color.

When we get down to cases, is it not true that these are the important considerations anywhere after all? In all the writer's experience of selling honey to local consumers, flavor was the item of first consideration. If the consumer liked the taste there was little trouble in making a sale, regardless of color. It happened in this case that the light colored honey was of the best flavor. My dark honey moved slowly because of its inferior quality rather than its color.

Tariff Troubles

What a funny old world we live in. For years the common man has been told his only defense against the cheap labor and cheap goods of other countries was by way of a high tariff. We all came to believe it and higher and higher we built our tariff walls. In time other countries came to believe the same thing and they likewise built up high tariff walls until it has become hard to trade one country with another although each has something which others need and which cannot be produced so cheaply elsewhere.

Now we are told that Cuba once consumed more lard per capita than any other country in the world. Then it was selling at about 8½ cents per pound. Now when it is only worth about a nickel per pound Cubans buy but little because retaliatory tariffs make it worth 19 cents per pound in that country. Thus because tariffs are so high that Cubans cannot buy our lard, Uncle Sam is buying pigs at the expense of the taxpayer, to kill them and get them out of the way.

Thus we go around a vicious circle, we boost our tariff and the countries with whom we do business boost theirs. Every time we begin to feel the pinch we boost them some more and when they get so high that business is impossible they begin to tax the consumer to pay the farmer to plow up part of his cotton and to let his wheat field grow up to cockleburrs. "What fools we mortals be." Even the beekeepers' market has felt the tariff pinch.

The truck with the load covered. Mr. Kreutzer in the rear.

An Adventure With Bees

By L. T. Floyd
Manitoba

STEINBACH is a town in Southeastern Manitoba, the center of a prosperous agricultural district, around it in every direction are villages and farms. The people are nearly all of German descent and Hochstadt, Greunthal, Neuanlage are some of the names whose pronunciation and spelling the Manitoba school children stumble over.

These districts have been little affected by the depression as the population gets a good living off the land. Grain, while it may be the principal interest is not the only one, as cattle, poultry, vegetable and fruit growing find a place on nearly every farm. Sweet clover grown for the cattle both as pasture and for hay is being sown in ever increasing acreage in late years.

Bees have been found profitable and also have been keeping pace in increase with the clover. One of the largest apiaries in this district is kept by Adolph Freund and numbers over a hundred colonies. When harvesting his 1932 honey crop Mr. Freund found something unusual—his honey was dark in color resembling the color of maple sugar. Honeydew gave that color.

A letter from the Department of Agriculture to all the beekeepers in the province about this time warned him to look out for honeydew of which he was warned that his bees would die before spring if he attempted to winter on it as it made inferior winter stores. He followed the advice contained in that letter and killed all his bees rather than take the risk of losing them. This brought up a new problem, that of replacing them at as small a cost as possible.

He, along with his neighbors, had been buying bees in two-pound packages from the Southern State to make up their winter losses and had found them satisfactory. When he talked with these neighbors he learned that they nearly all wanted some packages for the next spring. In reading over the advertising in the bee magazines he saw the invitation of some of the shippers to come and get them. Here he thought was a chance for a visit to the South and if this plan was recommended he asked himself why not give it a try? On his trips to town during the winter he talked over his plans with Jones Friesen, the man from whom he bought his bee supplies, his office being headquarters for the beekeepers in town. Mr. Friesen had a one and a half ton Chevrolet truck that was good for the trip if only he could be induced to go. Road maps were then secured and the trip made many times on paper. Finally Mr. Friesen agreed to supply the transportation and deliver a load of bees at Steinbach for $160.00. Wm. Kreutzer then came into the picture, he wanted bees and also wanted to see the South. He agreed to go along and take his turn at the steering wheel.

They come to stare and wonder at the big load of "Wild Animals."

Ready to start. Mr. Freund in the foreground. Mr. Freisen ready to take his place at the wheel.

On the 18th of April, clad in new overall suits and loaded with road maps they took the road. It took five days to reach their destination, Mayhew, Mississippi. The speedometer registered 1785 miles. The question arose—how long will it take to get loaded? The bee men asked for a day and a half, but next morning bright and early, the crews went to work and that load of bees, 440 packages, was all ready to go before dark. Mr. Freund says that anyone who says that Southerners cannot hurry had better "guess again."

It took four days to return. Friesen and Kreutzer drove the car while Freund looked after the bees. They slept in a bed every night and made the trip in four days. Early starts, five or six o'clock in the morning until ten or eleven o'clock at night was the schedule. On one morning, they made the start at three o'clock.

The load was left uncovered until the bees began to show signs of chilling, that is they began to fall down in the bottom of the crates. This was on the morning of the third day. It was then that the canvas covering was put on and left there until they got to their destination.

Two mistakes were made, or rather experience pointed out, two points worthy of consideration. They found that as soon as the truck got on the road and speeded up to 40 miles an hour which was the maximum speed, the bees moved up into the wind and clustered in the front of the packages. This left any queen cages that happened to be at the rear of the feeder cans uncovered. Twenty queens were lost through chilling, enough extra queens were carried to take care of more than that number but the loss was there and this mistake will not be made again they say.

The other mistake was in taking all their money in American Traveller's Cheques. When they arrived at the Customs on the return, American Money that had cost them 21% exchange had to be paid over to cover the Canadian Customs charges and at par. Next time they will carry some Canadian currency.

When Mr. Freund was asked what was the most interesting impression of the trip he said, "It was hard for me to persuade myself that I was not dreaming after driving our truck through big snow banks in the North, then on the other end of our journey we waded through sweet clover to our knees and in full bloom. five days later. Just think of that."

Mr. Friesen said the interest shown in their load by people everywhere along the route was the point most interesting to him. He said one man in Kansas City came rushing after them to report that one of the bees had escaped. This was not meant for a joke, he was very much in earnest about it.

Mr. Kreutzer recommended anyone taking such a trip to plan for a three or four days' rest before returning. He thought it was not good business to make that long trip and then turn about and return without taking a good rest.

The empty packages from this load have been carefully saved for the next trip for as Mr. Freund says, "those packages with the feeder cans cost the shippers twenty cents each and on a load of 440 packages is $88.00 and that amount will buy a lot of gasoline." The man from whom they purchased stated that he would be glad to make that reduction in the price if they provided their own containers.

All three are keen for another such trip. Their photos, of which they took a large number show that mule teams and colored people were more interesting than anything else as these were in nearly every picture and something they never see in their home town.

They claim that there is no trouble to bring the bees through in good shape by truck and prove this statement by adding, "We had one package in which there was no feeder can and it was as good as the others." As far as Manitoba is concerned, I believe these men have blazed a new trail. A trip into mid-summer after a long cold northern winter is a treat that few can afford. When it can be made a matter of mixing business with pleasure who would not be glad to give it a try.

New Rates on Honey in Glass

By Kennith Hawkins
Wisconsin

New less carlot rates on honey packed in glass are to be published shortly which give this product the same rates as if packed in tin. This is a victory for those of us who have been interested in this fight since 1922. The battle has been a long and expensive one and the Inter State Commerce Commission has now ordered the rates into effect during September in territory governing railroad rates east of the Mississippi and north of the Ohio, generally speaking.

However it appears that the railroads and Commission are agreeable to having similar rates published in all the territories, so this advantage should accrue to all U. S. shippers by or shortly after the end of September. Honey and other foods packed in glass have been discriminated against, because when shipped in the same freight car with honey or other foods packed in tin, the same item packed in glass took a much higher railroad rate.

There are many producers who belittle the value of the glass package, but no one experienced in marketing can deny that many persons buy honey in small glass packages who never buy it otherwise. Also many who start with a small glass package later purchase a larger package either in tin or glass.

The fact that honey and other foods in glass now take same lcl rates as if in tin means that many stores who would not formerly handle honey packed in glass because of rate discrimination, will now handle honey. Many stores cater to a trade that will only buy honey packed in glass. Investigation shows that railroads pay no more for damage claims on food products shipped in glass than in tin, since the vast improvement of glass containers the past few years. The worst offenders are those who ship goods improperly packed which lays the product liable to suspicion when applications for lower ratings are made.

It is the writer's opinion that this decision will in another year mean a much larger movement of honey and its offering in stores which have long refused to handle it before. Nearly all the packers of honey and some of the bee supply manufacturers, as well as the Glass Container Association, New York City, have joined in this successful fight.

Points in Clarification

By A. O. Blackhurst
England

It has been most enjoyable and interesting to read the contributions to honey chemistry conceived and worked out by Drs. Lothrop and Paine and now that two more keen workers (Messrs. Ramsey and Milum) have joined the band, the future holds promise.

I must confess, however, to a little haziness after reading "The Discoloration of Honey." I rather imagine this ought to have been "Discoloration of Honey Due to Heat Whilst Being Processed," and would like to have that clear in my mind in order that the author's viewpoint may be appreciated. A second matter that requires attention is a careful definition of the original sample with particular reference to the flora and rainfall characteristic of the district in which it was produced.

Might I point out to your contributors that "naturally" dark-colored honeys produced in the Levant, middle west of Canada, and the West Indies owe their color to tannins (both pyrogalls and catechols), with which are associated the primary, intermediate and ultimate products, and that during fermentation of dark colored honey ellagic acid is thrown down in considerable quantities.

Dr. Kurtaz has demonstrated the elaboration of carotinoids from Guaicol originally found in dark Upper Silesian honey.

A Test of Caucasian and Italian Honeybees--II.

By C. L. Corkins

IN the previous article was discussed the weather and honeyflow environmental conditions under which this experiment was conducted. It is important to bear these in mind when we examine the findings on seasonal honey production.

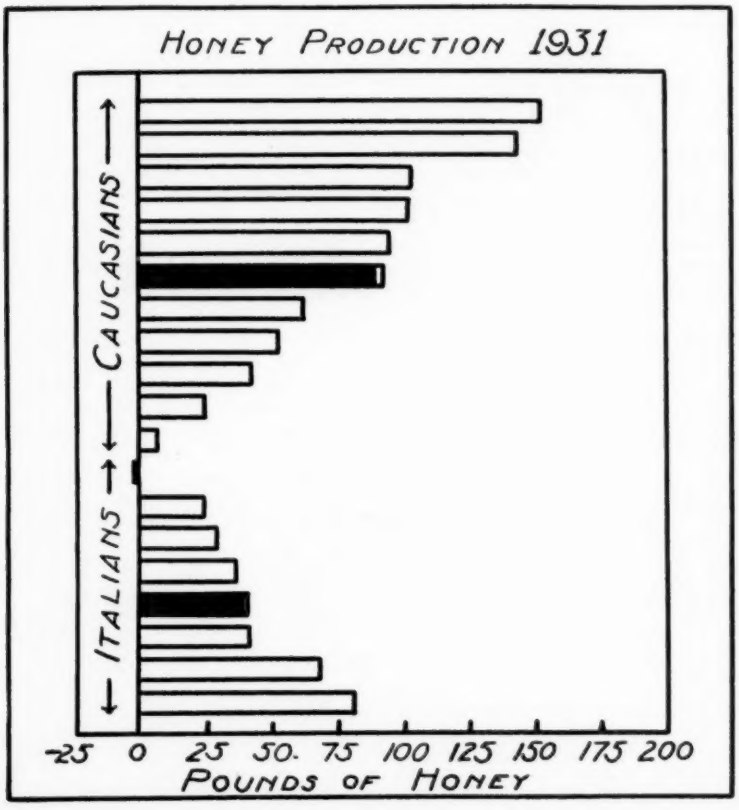
For the experiment everything possible was done to keep all the colonies under exactly similar conditions summer and winter. Manipulation practices were made as uniform as possible. Swarming was completely eliminated. Everything was done to get as large a honey crop as possible from each colony. During the main honeyflow the colonies were supered weekly. In supering, two important manipulations were always made. First, the heavier supers were raised to the top and empty ones always kept next to the brood chamber. Second, brood-free combs of honey were lifted weekly from the brood chamber and placed in the storage supers and replaced with empty combs. Much of the time under our weather conditions, the bees will not go into the upper supers readily and as much as two or three supers of fine honey may be produced in the brood chamber during a season. This is particularly true of Caucasian bees. Hence, we found this manipulation practice of extreme importance.

On an average, 20 colonies of bees, equally divided between the two races, were in the experiment each year. Brood rearing records were taken of 55 colonies during 3 years, while about twice that number figured in the honey production records.

In this article, the characteristics of the two races in honey production and brood rearing will be discussed.

Honey production, of course, is the primary end and aim of most beekeeping. This story under our conditions for the two races is well summed up in the accompanying table and graphs. It has been very apparent to us that the Caucasians show to greatest advantage when "the going is the toughest." This also seems to be a rather general experience of beekeepers in our region who have tried the two races side by side in commercial apiaries. The year of 1927 was the worst in my experience at Laramie. The Italians just barely held their own, while the Caucasians made a super of honey each.

The two graphs of individual colony honey production records represent for 1930 a "bumper year" and for 1931 a more or less average year for our conditions.



The brood rearing characteristics of the two races were studied in considerable detail, as these would have a large bearing upon honey production. Three very significant differences were found in the brood rearing activities of these two races of bees. These are illustrated in the graph of seasonal daily egg production for 1930, which is fairly typical. These characteristics are:

1. The Caucasians build up far more rapidly than the Italians during the spring and early fall up until the beginning of the main honey flow, about July 15. This has been observed every year, consistently. The three brood rearing cycles prior to the main honeyflow are all important to the production of a crop, as it is during this period that about 75% of the bees which gather surplus honey are reared. For the three years of brood rearing records, the Caucasians have a 22.6% greater production of bees than the Italians for the period of May 14 to July 15.

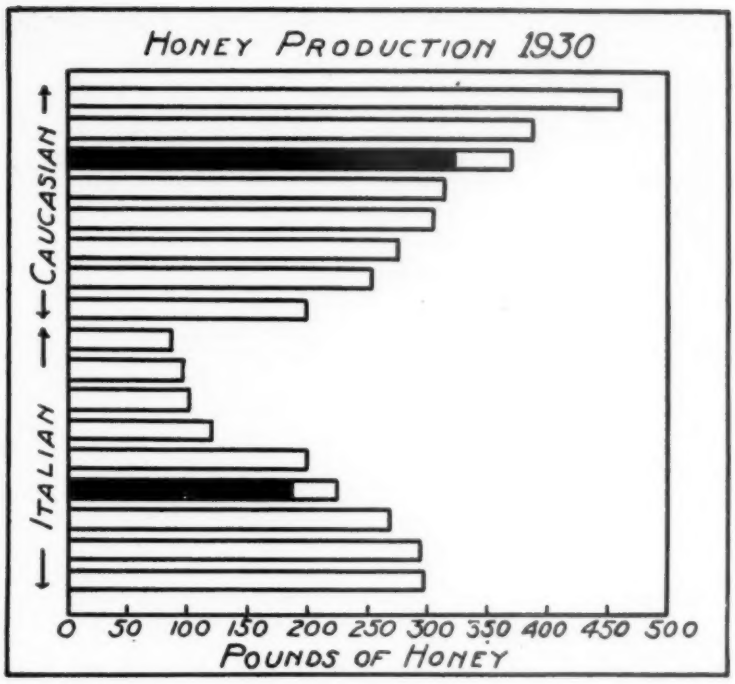
2. During the main honeyflow, the Caucasians start at once to cut down brood rearing, while the Italians come to their peak during this period. Even with the initial colony population much less on July 15, the Italians over a 3 year period produced 7.1% more bees during the six weeks after this date than did the Caucasians.

3. The Caucasians start cutting down on active brood rearing faster during the waning of the honeyflow and completely halt brood rearing from two to three weeks earlier than the Italians.

The first two of these facts are well illustrated in the accompanying comparative brood production table.

These first two differences in the brood production activities of the two races of bees would seem to account, in part, for the differences in honey production. It is very apparent that during the difficult building up period of the early spring and summer in the mountains that the more rapid production of bees at this time by the Caucasians is a distinct advantage. On the other hand, this factor might be a distinct liability under different environmental conditions, or, at least, no appreciable asset.

The difference in brood production during the main honeyflow undoubtedly has some bearing upon honey production. The continued rise to the peak of brood rearing by the Italians at this time would retard maximum surplus honey production, first, because a larger proportion of the bees would be needed for hive duties, thus cutting down on the available field force, and, second, a larger proportion of the nectar gathered would



be needed for the feeding of the brood. Anyone who is familiar with Dr. Wallace Parks' experiments in this connection will realize what an enormous amount of hive energy goes into brood production. It is inconceivable to me how this characteristic of reducing the brood rearing during the main honeyflow could ever work to a disadvantage to the Caucasians. The only possibility in this regard would be in localities where the honeyflow is long and slow or there are intervals between major honeyflows.

We do not believe that these brood rearing characteristics entirely account for the differences noted in honey production. Doubtless other factors are involved, probably largely in the reaction of the two races to weather conditions. Additional experiments had been planned to ascertain these points, but the work is now either temporarily or permanently stopped at our Station.

Again, may I emphasize the fact that these figures apply to a mountain region. They may not be applicable everywhere, especially if the environment is entirely different. And even in the lower mountain valleys, the differences will not be so striking. But it is very apparent both from the experience of beekeepers and general observation, in addition to these experiments, that the Caucasians are the better bees for intermountain conditions.

In the closing article will be discussed other characteristics of these two races as they affect the general manipulation of bees. In this connection, the Italian fancier will find greater satisfaction than elsewhere in these articles.

[It is well for us to emphasize the fact, here stated by the writer, that "the Caucasians are the better bees for intermountain conditions." Caucasian bees, as well as Carniolan bees, are bred in countries of mountains. The Italians are much better for plains like the valleys of the Mississippi River.—Editor.]

Cold Pack Canner for Heating Honey

When it is desired to heat a 60-pound can of honey, put the can in a cold pack canner in which it should just fit. It liquefies readily.

M. R. Woodard & Sons,
Ohio.

"Modern Living" to Boost Honey

J. E. West, representative of the magazine "Modern Living," published in New York, is searching for authentic articles concerning honey as a health food. We have referred him to our Secretary of American Honey Institute, Mrs. Malitta Jensen. This is a thorough going modern paper on health facts and it should prove an excellent medium of publicity for our favorite food. "Modern Living" has carried an occasional article on honey which has been well received, but has requests for information on honey as an article of diet so they plan a series of articles on the subject.

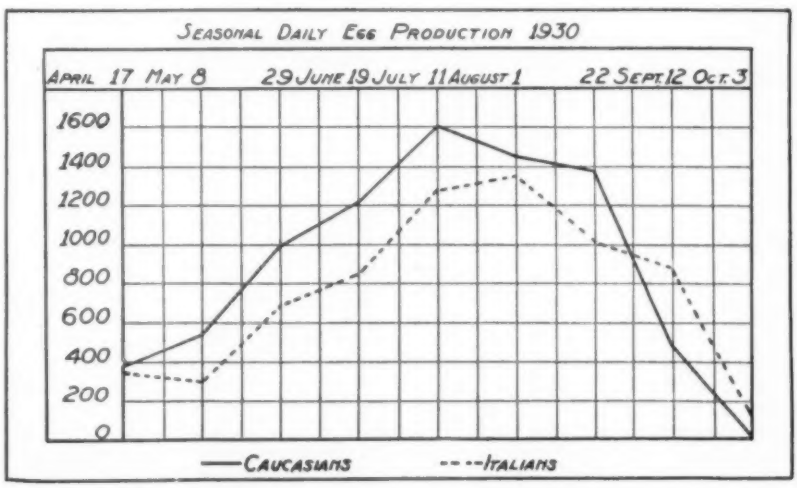
"Modern Living" is an excellent medium for advertising honey to those interested in good health. A number of beekeepers have already taken advantage of its pages to sell their product. Modern Living is published at 131 West 30th Street, New York City.

That Name "Foulbrood"

I have been interested in bees only a short time but I have felt the sickening effect of what was in Mr. Hofmaster's article in July, and which has evoked considerable discussion in your magazine. I took up bees in a small way quite recently and I have always been fond of honey but a study of this malady among bees, has almost deprived me of both my interest in bees and my taste for honey. Surely the use of some less offensive name would be wise and profitable.

I. S. Hopkins,
Georgia.

[We repeat the suggestion we made in July. Call it "Bacillus Larvae."—Editor.]



One Cause of Variability in Bees

By H. S. Rogers
Illinois

ARE queen breeders "barking up the wrong tree" in trying to get "super" queens by exaggerated or unusual methods of feeding the queen larvae? The very apparent variations in queens can hardly be accounted for on the basis of feeding any more than variations in humans could be accounted for in a similar way. If the queen is normal and fully developed—those I buy seem to be—what more could be asked of any method of feeding? But queen breeders are not satisfied. They do not get uniform queens! Neither do I, nor does anyone. To quote Mr. Latham: "There may be ten cells built when a colony prepares to swarm. Of those ten cells, one may throw an excellent queen, two or three others may throw good queens, while the rest will be below average." Such variation is typical, not only of queens produced in swarming, but of queens raised by any method. Feeding does not explain it! Such variability can be accounted for most readily on the basis of heredity. To a student of heredity such variability can mean but one thing; that we do not have a pure strain.

It is easy to see why we do not have a pure strain. Many varieties of bees have been introduced into the United States; swarms of these have escaped from time to time; bees fly long distances; and finally, the queen mates in the air so that her drone is not selected by man. Another factor enters here that may be of more importance than at first appears; wild bees and poor and uncared for colonies, in contrast to well cared for apiaries, produce great quantities of drones. This fact was brought forcibly to my attention when I took a colony of bees out from under a friend's front porch. Fully 50% of the bees were drones! This one colony must have had more drones than my whole apiary! Queens mating in an adjacent apiary would find nearly half of the drones in the air to be from this colony! As far as heredity is concerned the drone is as important as the queen. No wonder we do not have a pure strain!

When a queen breeder gets the strain of bees he wants, in order to keep it pure it would be necessary to requeen everything in the vicinity with purely mated queens of his strain. It would be necessary especially to exterminate wild bees in bee trees, walls of houses, etc., for these produce multitudes of drones. He should also keep his own apiary requeened **yearly** with daughters of his best queen. It might be desirable even to give his own queens some drone comb.

I would like to see the emphasis in queen breeding shifted from manipulations and feeding to selection and heredity. The improvement obtainable from special methods of feeding and handling the queen larvae has not been satisfactory to such queen breeders as Jay Smith and Allen Latham, as can be seen from their articles on that subject. It looks as if the good and careful methods they are at present using are producing normal and fully developed queens. They should not blame feeding and manipulations, but heredity, for undesirable variations they notice. I should expect more real improvement from proper control of heredity, from **persistently** selecting the best, and from persistently requeening all sources of drones from the best. If uniformly good queens are wanted that is the way to get them!

Dressing Up Honey

By Roger Collins
Ohio

A little extra effort in putting up honey in the attractive type jars which Emery Leow of near Oak Harbor, Ohio, is shown holding brought Mr. and Mrs. Leow some real profits last Fall from the sale of their 200-gallon crop of honey. The Leow's sold the honey along with their crop of winter graded apples at a roadside stand in front of their home. People who stopped to buy honey bought apples and vice versa. The jars which cost 5 cents each sold for 30 cents. Purchasers stopping at the Leow farm noted the flock of 135 Burbon Red turkeys strutting about and many placed their Thanksgiving order.

Bees at a High Altitude

By John Ronayne
British Columbia

On August 1st, 1931, several members of the Vancouver Natural History Society including myself and an amateur collecting entomologist, Mr. A. R. Wooton, found Italian bees lying dead or dormant on snowfields at an altitude of about 7900 feet and distant in an airline not less than five miles from the nearest hive located 900 feet above sea-level in the adjacent valley of Pemberton Meadows. Some specimens collected by Mr. Wooten were later identified at the University of British Columbia as "A Mellifica." On the same day honey bees were seen on wildflowers lower down the mountain at an altitude of 5400 feet.

On August 3rd, 1932, in the same neighborhood I saw many bees collecting nectar on "Valeriana Sitchensis"' at an altitude of 4500 feet just as one would see bees on white clover at the same moment nearly 4000 feet below on the valley floor. On the following day three companions and I found bees lying chilled and apparently dead on snow at 6300 feet altitude. One revived and flew away after being held in the hand for a few minutes. Four days later I could find no bees on the same flower patch nor anywhere near, though the sun was shining brightly and warmly and should certainly bring out the bees if they had their home within a few miles.

August 12th, 1933, I visited the same area but though I kept a constant lookout for bees I saw none but heard, later, on good authority, that several were seen and one captured in the zone between 5000 and 6000 feet altitude.

My reasons for thinking that these bees ascended to this extraordinary distance and altitude for nectar and pollen, (I did not notice any pollen on them), are:

It would be altogether impossible for an escaped swarm to winter in the floriferous zone at any altitude above 4000 feet on account of the very short season in which bees could work, at the very outside from July 1st to Sept. 15; it would be most unlikely that a swarm would locate anywhere on the steep fir clad slopes above devoid of nectar bearing flowers, between the valley floor and the 4000 feet level in which section I have never seen a bee, besides in the valley floor itself colonies barely pull through, though helped with cellars, Kootenay cases and other artificial protection, on account of the long winter with snow on the ground from early November till April. Therefore it does not seem likely that in a wild state a colony could survive on the mountain side where the winter season would be much longer. Practical-

ly all the suitable bee trees, such as hollow cedars and cottonwoods, are on the bottom land; or very close to it. If the bees had their home among the flowers in the timberline area or within two or three miles of it they could be seen every day in fine warm weather and not as now at long intervals. The bees seen on the mountains correspond exactly in color with those kept in the valley by Mr. J. Landsborough. Years ago I took a small colony of bees to the timberline in the same area and left them there from August 1st to Sept. 1st, and though they lived among a sea of flowers they were starving when I fetched them down again to gain five pounds in weight down here on Alsike clover in one week.

Wintering After Nature's Fashion

By Herbert Morehouse
Michigan

Since there is so much discussion pro and con about wintering, I would like to add my bit. I have tried cellar wintering, double walled hives, packing, wrapping and the whole works and have come to the point where I winter on the summer stand, protected only as I will show later.

The ends of the hive are fairly well protected by the end walls, an air space and the end bars of the frames, making parctically two walls and an air space between. On the sides of the cluster one to several frames of comb honey provide plenty of insulation there, leaving the top as the only exposed place and also the most dangerous as we know heat travels upward and cold downward.

To my mind, there are three dangers to guard against in outdoor wintering. First is cold, although bees will stand considerable of that if other conditions are right; second, inaccessibility of stores, bees might starve with plenty of honey in the hive if weather conditions are such that they cannot reach it; third, moisture, which I consider the worst because usually too little attention is paid to it.

Now for the way I try to overcome these dangers. My system has been worked out by several years' experience and many talks with other beekeepers. The first requisite is plenty of honey. Always remove all supers early enough to be sure that the bees will have plenty of stores. Next I found that I prefer burlap inner covers, both summer and winter. Of course the bees chew them up some, but it is like the Chinaman who is running away from the bear and stopped to rest, the bear came up sniffing. The Chinaman said, "Aha, likee my tracks, I makee plenty more."

I contend that by using burlap and lifting covers in summer, it is much easier for the bees to ventilate the hive and in the winter the burlap allows the moisture to escape upwards and out which is the way it naturally goes.

I take an empty section, lay it flatwise on top of the frame, cover with burlap. Then on top I place an empty comb honey super filled with planer shavings or chaff. I prefer not to use sawdust as it packs down too hard.

In addition, I ventilate above this, the same in winter as in summer, but not to the same extent. In my flat covers, I drive two roofing nails on the inside where the nails will rest on the back end wall of the hive, holding the cover up about ⅜ of an inch which gives the moisture a chance to escape without making a draft.

Last winter was very severe here in Michigan. We lost two out of 40 colonies wintered as I have just outlined without any feeding and only ordinary care. Thirty-two of these have produced approximately 2900 pounds of honey.

"Pollen from Cows" -- Ugh!

We were not so much concerned about the truth of the report of "Pollen from Cows" as to what effect this would have on the sale of honey.

The public thinks of honey as a pure and delicious sweet, the product of sweet scented flowers. Bees and flowers have been themes for Poets.

What will people think when they are told that bees gather material from the hides of cows? Will they rush to the stores to buy honey?

Cherrylane Apiary,
Ohio.

"When the Oldest and the Youngest Get-to-Gether Over the Hive, the Bees Must Hum"

Amos Myers (left) of near Lafayette, Indiana, a Civil War veteran and the oldest active beekeeer in the state—according to entomology department records—inspecting a frame of his bees and honey with Ben H. Wilkins, Indianapolis, deputy state bee inspector on the staff of the Department of Conservation, Division of Entomology, who is the youngest bee inspector in the state.

Mr. Myers is 92 and spent four years of service in the Civil War being present at the surrender of Lee. He has kept bees for 15 years and finds them valuable helpers in the pollination of small fruits and melons on his truck farm. He has 20 colonies in his apiary.

Mr. Wilkins, a Purdue University graduate, is a veteran of the World War. He travels about the state inspecting the colonies of bees and giving advice that will aid the beekeeper in preventing disease from destroying his bees.

A Search for a Method of Producing Honey in the Poisonous Buckeye Area[1] in California

By E. L. Sechrist, F. E. Todd, and G. H. Vansell
Bureau of Entomology, United States Department of Agriculture

Introduction

FOR several years, practically all beekeeping operations in the buckeye area of California have met with disaster. Colonies suffer not so much from loss of field bees as from reduction in egg laying, destruction of larvae, and the production of deformed and wingless ("buckeyed") bees. The cause of the trouble was established when experiments conducted in Solano and Yolo Counties by the University of California (2), largely with commercial Italian and a few Carniolan bees, showed that these bees failed when working buckeye. At present, perhaps 90 per cent of the bees in the valleys of California are Italians.

In Eldorado County failure with various pure races has been experienced by William G. Watkins and by beekeepers who have moved bees into that county for pollination purposes. Mr. Watkins and Arthur Dickenson, of Napa County, two unusually careful observers, have, however, attained success in producing honey in buckeye territory by using hybrid bees.

This paper contains primarily a brief statement of facts obtained from investigations conducted during 1931 in Eldorado, Fresno, and Tulare Counties. The results are considered sufficiently important to justify further investigations, and the practical points have been selected for immediate presentation to beekeepers.

Specific Sources of the Poison

Neither the exact chemical cause of the trouble nor whether it comes from the nectar, pollen, or sap of the buckeye is yet known. In the Tulare and Placerville districts this season an insect, **Gerhardialla delicatus** Uhl., was found puncturing buckeye plants and liberating sap in the same way as did the **Irbinia solani** Heid reported from Solana County in 1924. Some bees have been seen to gather this sap.

Extent and Importance of the Buckeye Area

The California buckeye (**Aesculus californica**) occurs on the rolling foothills from sea level, or the valley floor, up to 4,000 feet or over, being most in evidence in certain areas on the northern slopes. Wherever the plant abounds and whenever other sources of nectar and pollen are scarce during its blossoming, colonies of bees may be depleted beyond recovery.

The territory made dangerous to bees by buckeye is enormous, being approximately 15 million acres. (Alfalfa is grown on about 1 million acres.) It also includes much of California's early deciduous fruit area, greatly complicating the problem of pollination. A part of the citrus fruit area, which is important for honey production, is also in the buckeye territory.

Because of the gradual decline in the honey crops in the Sacramento and San Joaquin Valleys, the buckeye-bearing foothills surrounding the great interior valley have become increasingly attractive to bee men. Nectar, both from buckeye and from other sources, is plentiful in these foothills, and a good crop of honey can be secured, although often with partial or total loss of the colonies through buckeye poisoning. Buckeye honey has been freely used in the human diet without any deleterious effects being observed.

The severity of buckeye poisoning of bees varies with the season and the locality. For example, in 1931 it was not so severe as in some other years, because of scattered late rains which caused the blooming period of certain spring plants to extend into the time of buckeye blossoming. Under such conditions products collected from other plants become mixed with those from buckeye, and the poisonous effect is less severe. Apparently because of the normal presence of miscellaneous sources of nectar and pollen in the cool, moist areas along the coast, buckeye is not seriously detrimental in that territory.

Resistance of Some Hybrid Bees to the Poison

Certain hybrid bees seem to be resistant to buckeye poisoning. Successes with crosses between Carniolan queens and Italian drones, as reported by Mr. Watkins in Eldorado County, stimulated a desire to determine the comparative resistance of a series of crosses.

Hybrid bees in varying combinations were therefore studied in 1931 in Eldorado, Tulare, and Fresno Counties. Ten colonies of each cross were in the same location, so the results were directly comparable. The Carniolan x Italian combination was promising, whereas the Caucasian x Italian, even to a greater degree than Italian stock, has proved discouraging.

One outstanding effect of buckeye on the Caucasian x Italian queens in Tulare County was the complete cessation of egg laying. This cross also fared badly elsewhere. The Carniolan x Italian queens, on the other hand, continued egg laying.

Requeening the depleted Caucasian x Italian colonies did not improve conditions. One entire group of badly "buckeyed" colonies of this cross (in Eldorado County) was requeened with fresh Caucasian x Italian stock, after having been removed to a good location outside of the buckeye area; the buckeye stores, however, were allowed to remain in the hives. These new queens ceased laying or became drone layers, and by August every colony in the lot was a total loss. That the Caucasian cross showed extreme susceptibility to buckeye poison is important.

The Carniolan x Italian hybrids in the Tulare area came through the buckeye flow in good strength, suffering less than did the Caucasian cross from reduction in egg laying and from destruction of brood. (Table 1.) Removal of all the buckeye honey from the colonies enabled most of the Carniolan x Italian bees to build up and to store a crop of later honey, whereas but few of the Caucasian cross built up even then. Also when the buckeye stores were allowed to remain, the Carniolan cross fared better than any of the others. This is a report of only one year's work with these crosses, however.

Possible Danger from Increased Prevalence of European Foulbrood Among Bees of Dark Races

Beekeeping in California, before the general Italianization of the common stock of bees, suffered tremendous losses through the sensitivity of the early black bees to European foulbrood. Because the use of Italians has reduced the loss from that disease to a minimum, the desirability of increased introduction of the dark races is questionable since it is not known whether any of them are less susceptible to European foulbrood than the early California black stock. Some of the older beekeepers, who have experienced losses from European foulbrood, will realize the necessity for this caution. It should also be remembered that colonies of Italian bees are comparatively little subject to damage by wax moths.

1. A contribution from the Pacific Coast Bee Culture Field Laboratory, Davis, Calif., maintained by the Division of Bee Culture, Bureau of Entomology, U. S. Department of Agriculture, in cooperation with the University of California.

2. Vansell, G. H. Buckeye Poisoning of the Honeybee. Calif. Agr. Expt. Sta. Circ. 301, 12 p. 1926.

Table 1.—COMPARATIVE DATA FROM 20 HYBRID COLONIES (1) IN A BUCKEYE LOCATION, APRIL 24 TO JUNE 2, 1932.

	Caucasian x Italian hybrids	Carniolan x Italian hybrids	Difference in favor of Carniolan cross
Total number of frames of bees:			
At beginning of period	About 117	117	0
At end of period	48 ½	66 ½	18
Number of colonies temporarily without eggs during period	10	0	10
Number of colonies with unsealed brood at close of period	1	10	9
Number of colonies with sealed brood at close of period	4	10	6

1. These 20 colonies, 10 of each cross, all had eggs and both unsealed and sealed brood at the beginning of the period.

Buckeye Honey from Excess Bees

Another line of investigation relative to solving the buckeye problem gives good promise of success. In the Great Valley a large surplus population of bees at the end of the spring blossom period becomes a distinct liability because after that time (April 15 to May 1) there is, as a rule, a general dearth of nectar for as long as two months in some localities. Colonies carrying a heavy population during this time quickly consume stores in brood rearing, use up energy in other activities, and are in poor condition for storing honey when the later flow begins.

As an experiment this excess population was removed from a number of San Joaquin Valley colonies at the close of the orange flow there and was carried into the foothills for the storage of buckeye honey. These surplus bees were supplied with combs and with one frame of unsealed brood, including eggs. The result was a crop of honey in the new colonies and an advantageous reduction in brood rearing and in consumption of stores in the old. In fact, the colonies from which these surplus bees were removed, and which were left in the valley, built up with sufficient speed to be ready for the later flows from alfalfa, cotton, blue curls, jackass clover, spike weed, etc. Actual production figures were unfortunately not obtained, but the crop harvested from them was equal to, if not greater than, that from the colonies allowed to remain in the valley without having their excess bees removed.

This result is what might have been expected, because the package-bee producers in the Sacramento Valley commonly report similar recovery, in time for the production of star-thistle honey, by colonies reduced in number of bees through the sale of packages during late spring.

The adult bees in these surplus colonies were not seriously reduced in numbers while in the buckeye territory. After the flow was over and the stores were removed, the addition of a four-frame nucleus with a queen placed each colony in such condition that another extraction of honey was obtained, either in the mountains above the buckeye territory or in the valley below it, where the bees were located subsequent to the buckeye blossoming.

The surplus bee colonies (ten in number) as made up at the end of the orange flow, contained from 5 to 12.75 pounds, averaging 8.75 pounds, of adult bees, and produced, in approximately 5 weeks, an average of 40.9 pounds of buckeye honey per colony, or about 4.6 pounds of honey to each pound of bees. This may not at first appear very profitable, but the colonies were moved only a few miles into the mountains at the east, and when the improvement in the valley colonies and the increase from the division are considered (the number of colonies was doubled) the possible profit becomes more apparent. Field indications are that this practice may assume commercial proportions in the immediate future.

Necessity of Removing Buckeye Honey

Experience this season (1931) has shown more clearly than ever, that the buckeye honey must be removed from the hive at the end of the flow; otherwise the characteristic spottedness of brood, dwindling, and destruction of the colony may become evident long after the buckeye blossom season. One lot of bees under observation in Fresno County was not much affected during or immediately following buckeye, apparently because food from other sources was being harvested continuously, but after a forest fire, which destroyed all blossoming plants in late summer, the bees consumed buckeye stores that had been allowed to remain in the hives, and a typical case of buckeye poisoning resulted. Another almost identical case occurred in Yolo County.

Restoring Buckeyed Colonies

Most colonies, even when badly depleted by the buckeye, can be built up again if taken in time. At the end of three weeks colonies that have been poisoned by the buckeye have lost practically all the unsealed brood they possessed when moved into the buckeye area, as well as the brood from newly laid eggs. If the colonies feed on buckeye products during the following three weeks, the failure to mature normal bees continues. Such colonies are too badly weakened to recover without the assistance of a fresh supply of bees.

The removal of buckeye stores, accompanied by relocation in a nectar area away from buckeye, before the loss of too much brood will save the colony.

Honey and Pollen for Hay Fever

By J. W. Powell
New Mexico

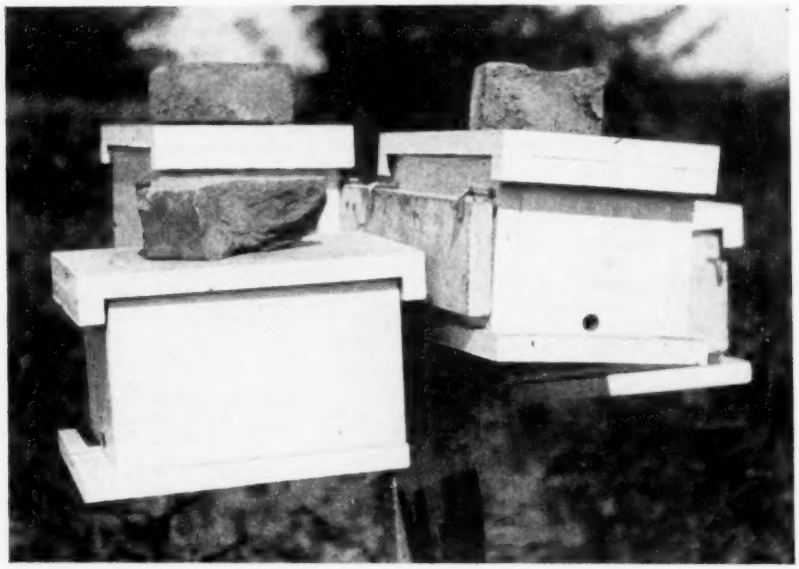
Two or three years ago, while watching doctors shake pollen from weeds onto a paper, the idea struck me that it would be easier to have the bees gather the pollen and that the bees would gather many kinds too. A few days after this observation, several of the members of the faculty of the State College came to my place for honey for hay fever stating they had read somewhere that honey was good for it. I began to have repeat orders from these people and most of them said the honey helped them so I thought by mixing the honey with the pollen, it might make a better remedy.

I went down into Texas to see a friend who runs a large clinical laboratory and asked him if pollen could be taken into the blood through the stomach and he told me that Dr. Black, of Dallas, Texas had proved two or three years ago that this could be done but that the pollen would have to be taken in larger quantities than that usually shot into the arm.

So he suggested, for a bottle of honey weighing eleven ounces net, one ounce should be pollen. I have been putting this hay fever honey remedy up now for two seasons and we get relief in sixty-five or seventy per cent of the cases, just as good a percentage as that obtained from injections.

I figure a person will come nearer getting the pollen needed this way. As the bees work so many different flowers, they are apt to have the very kind required. I have sold fifty or a hundred dozen jars. Of course the honey put up here for the purpose would not work in the East as there are different kinds of pollen in different locations that cause hay fever; but I think beekeepers of each locality could put out a honey hay fever remedy of their own and help honey sales as well as alleviating considerable suffering.

Those Baby Nuclei Again



These were hanging, four on a post, in the queen rearing yard of Harry Pease, Shenandoah, Iowa. So we stepped close and worked the camera. Note the way they are hung with bent irons over two-by-four cross pieces. The bricks make the whole arrangement firm and hold on the cover. Sections are probably used for frames although we confess that we did not look inside.

The Beekeepers' Convention

By H. E. Coffey
Texas

IN our bee journals we make much ado about our national association, the American Honey Producers' League, and our various state and regional associations; but in reality the annual convention is the "hub of the universe" to any such associations as we have. And inasmuch as the annual convention is a success the association is a success and inasmuch as the annual convention is a failure the association is a failure.

Prof. H. F. Wilson, in his recent discussions of our national association stresses, indirectly, the importance of the convention when he admits that regardless of the organization's constitutional rules it has been found necessary in practice to allow the members attending the annual conventions to vote on the various questions that come up and largely regulate its affairs. But we have only lightly considered the vital place of the convention in our affairs and, more recently, have allowed the generally pervading gloom to depress our spirits and partly obscure and minimize the real importance of our national and other organizations.

I am convinced that we are passing through a period of the greatest and most far reaching changes, economic, technological and social, that the world has yet witnessed. In the changed condition of society the convention is destined to play a vastly important part, and from being viewed as a pastime will come to be used as an essential cog in the machinery of civilization. We beekeepers are not the "live wires" we sometimes think ourselves to be for it is already true that nearly every business, industrial, labor, religious, educational and scientific, takes its annual convention more seriously than we do. Why the latest is that it is no longer considered possible to rear first class babies without the annual conventions for wives and mothers where they can get together and tell each other how it is done.

However, we, as beekeepers, will come to take our conventions more seriously as we come to recognize the fundamental truth that our business, and every other business enterprise, is a public service undertaking and that the rights and interests of the consumers of our sweet must be fully recognized and conserved. We will come to attend our conventions in greater numbers and more religiously as we get better educated to a truth that dates as far back as constitutional government—that people must get together to solve their common problems. In recent months plans have been formulated for reviving industry and business. There is the Stuart Chase Plan, the Swope Plan, the La Follette Bill for a National Economic Council and the plan set forth by the United States Chamber of Commerce, and all these plans center around the fundamental thought that in each line of business there must be an organization for enabling men engaged in each particular field to get together. It is only by education and the necessities that arise from economic changes that these truths can be impressed on our beekeeping profession.

Particularly in a period of adversity one of the main objects of a convention should be to improve the mental attitude of the members and hence the necessity for getting out a large attendance if possible. While pre-convention advertising and publicity does help in creating attendance yet the greatest drawing card lies in having a group of convention officials who plan far in advance for the minutest details of the meeting and who arrange a program of value to every delegate.

There is no question but that the interest of beekeepers in conventions, and particularly the national convention, needs to be rejuvenated. Much headway in this direction could no doubt be made by applying clinical technique in the conduct of such conventions as our national. Medical clinics you know are established that physicians may properly examine patients and arrive at the proper remedy to apply in each particular case. The clinic idea, as it is now coming to be used in many conventions, is nothing more than the old-time round table discussion of our more vital problems, but in more modern form.

The program and arrangements committe have much to do with the success or failure of any convention. Rightly merchandised the program can be made to attract attendance. Members should have printed copies of the program at least two weeks before the date of the convention. Every subject on the program should be of real importance and leave room for general discussion by the delegates. Let the program committee keep in mind this motto: "The greatest good for the greatest number." Let the program contain dollar-and-cents ideas and beekeepers will not hesitate to invest to a reasonable extent in attendance.

With conventions held at hotels, as our national convention is held, there is sometimes the problem of excessive private entertainment to deal with. With the repeal of the eighteenth amendment such problems might become more difficult. The vast majority of beekeepers are temperant but there may be a few objectional cases of excessive drinking. While it may require more courage and conviction than we usually show yet the

hotel management and association managers would do well to deal firmly with such cases and bar them from attending the convention meetings.

The convention cannot expect to accomplish the greatest good where the program is primarily to the advantage of favored individuals and cliques. Likewise if officers of an association become unofficial "bosses" and the members merely their tools the association will fail to make progress. Even though such dominant personalities act for what they honestly believe to be the best interests of all the convention will become like a stagnant non-circulating water hole.

The most timid members should be made to feel that their knowledge and views are wanted. To effectively achieve this end there is much advantage in getting views and ideas from members sometime prior to the convention. The convention can then become an agency for analyzing and testing the interpretations which association leaders have given to various questions.

As automobile manufacturers must create a new model car each year to hold the interests of the buying public, so the convention must advance each year to attack new problems and devise new ways of approach to solution of old ones if interest of the membership is to be held at highest level. And convention leaders should ever keep in mind that each convention should accomplish something **important** and **definite** if old members are to be held and new members enlisted. Beekeepers do not cherish spending hard earned cash merely to go to a certain city and hotel to have "a good time."

These thoughts are given in the spirit of genuine helpfulness and with hope that some useful application of them may hereafter be made and in the end that our investments in beekeepers' conventions be made to pay the thrifty dividends that they rightly should.

A Late Blooming Bee Plant

By C. W. Wood
Michigan

There usually comes a time in late Summer when the bee pasture is quite devoid of flowers. The Goldenrods and Hardy Asters are not yet in full bloom; the early Summer procession of blossoms has passed and the Autumn parade has not fully started. Then, Micromeria rupestris should prove a real help to the beekeeper and his workers.

This little plant belongs to the great family of labiates which has given us so many herbs with aromatic foliage for use in our cookery and medicine. It comes to us from southern Europe but is quite hardy in our northern states except in the most exposed situations. It is a low-growing perennial, with somewhat prostrate stems which turn upward at the tips, reaching a height of eight or ten inches at the end of the flowering season. The branches are clothed in small leaves, and, from August until frost, produce small, white flowers. Comparatively speaking, these flowers are small but speaking from the standpoint of micromerias they could well be called large.

The interesting point about the plant so far as the beekeeper is concerned is that these white flowers prove an attractive source of nectar. I do not know that the plant has ever been plentiful enough in America to influence the flavor of honey but, judging from the vanilla-like odor of the flower, I should expect a delicious product.

The plant is easy to grow, doing well in any light soil in sun. And it is easily propagated from seed, division and cuttings.

A Market Bulletin

"Honey Marketing in California" by Edwin C. Voorhies, Frank E. Todd and J. K. Galbraith has recently come to our desk. This is bulletin 554 of the California College of Agriculture, Berkeley, California.

The authors go into great detail as to the methods of marketing honey, point out the advantages and weaknesses of the marketing system and discuss the outlets for the product. Every western beekeeper should profit by a study of this publication to see what is going on in the marketing field.

Zander's Birthday Book

Celebrating the sixtieth anniversary birthday of Dr. Enoch Zander of Germany, a number of his former students conceived the idea of a book of commemorations to him. This consists of a 130 page book compiled by A. Himmer and E. Wohlgemuth and published by the Leipziger Bienenzeitung in Leipzig, Germany.

The book is very interesting, indeed, and will be sought for by the scientific or literary beekeeper. It starts with a history of the life of Dr. Zander and his accomplishments and is followed by a number of technical and scientific papers based on the teaching of Dr. Zander and mostly written by his students.

Subjects included are "Larger Wax Moth," "Composition of North German Honey," "Composition of Pine Honeys," "The Eyes of the Drone," "Influence of Smoke on Bees," "Investigation of Sugars in Food for Bees" and a number of other shorter papers.

The books sells for Reichsmark 1.50.

Recipe for Honey Jelly

2½ cups (1¾ lbs.) honey.
¾ cup water.
½ bottle Certo.

Measure honey and water into large sauce pan and mix. Bring to a boil over hottest fire and at once add Certo, stirring constantly. Then bring to a **full rolling boil** and immediately remove from fire, skim; pour quickly into glasses, and seal with paraffin or use fruit jars.

First Steps in Beekeeping

Here are the children of Gaetano Piana, of Castel San Pietro, Dell 'Emilia, Italy. Piana is a breeder of Italian queens and his stock is found in many parts of the world. Perhaps one or more of the younger generation will continue his efforts. Although not sure of the order of names the little girl is probably Maria Rita; the older girl, Clementina; and the two boys, from left to right, Gian Pietro and Giulio.

Now This Is Joe's Idea

By J. L. Baker
Texas

WHEN Joe Ivey decided to become a salesman in order to sell the surplus product from his farm, he put into his selling scheme exactly the same amount of boundless energy and intelligence that he had previously put into advertising. The result was that the little farm Joe bought six miles south of Ladonia, Texas, prospered exceedingly, and his family of six waxed brown and healthy. But there was one slight cloud in the sky of Joe's happiness and prosperity.

"Darn it all," he complained one day to Mrs. Ivey, "I work hard enough here and we should be making more money than we do. The whole fault is in finding a profitable market for what we raise."

Now, Mrs. Ivey, a wise little lady of 120 pounds, knows a thing or two besides cooking and raising healthy children. You see, she was once Joe's stenographer. And she knows something about advertising, too.

"Joe, why don't you try and find a new market," she suggested.

"Sound idea! Watch me, little lady! I've got a bright idea now, thanks to you!"

Next morning Joe took the train to Dallas—a city of about 260,000 eighty miles away. He returned that afternoon exultant and happy, waving a package of papers: "Well, little lady, I've got the ammunition," he told his wife, "now it's up to us to do the shooting." Then he told her as calmly as he could just what his idea was and how he was to try and work it out.

Mrs. Ivey had given him the idea when she suggested that they develop a new market for their product. When new markets were suggested, Joe at once began to think in terms of advertising, but turned it down as being too expensive. The advertising he did think of, however, was direct mail advertising or form letters. He went to the city, and in a certain advertising agency where he was well known he came across exactly the kind of list he wanted. It was small, compared to many mailing lists, but what it lacked in quantity it made up for in quality. The list was made up entirely of wealthy people; people who were accustomed to having the very best, regardless of price.

Joe's letter campaign was very modest, when cost is considered. First, he used a splendidly balanced letter-head on buff paper—a letterhead that fairly breathed quality and yet cost but little. The paper and envelopes, he told me, cost him $4.00 a thousand. Small order blanks were enclosed with each letter, on the same kind of paper, and the cost of these was very low. Mrs. Ivey used the family typewriter to type the letters and she managed to turn out an unusually large number of letters each day. The first letter was one of Joe's own composition. He calls it his "honey letter"—and he immediately began to get some very gratifying returns—orders with checks. The order blanks specified no smaller amount of the honey than one gallon and Joe found that an order of this size made a profitable shipment. The price? Twenty-five per cent above current market prices! Joe found his market and he also found that people of the class to whom he sent his letters were willing to top the market by a very reasonable margin, if they could depend upon quality and freshness. Joe was inherently honest and never once has he sent out inferior produce. Only four times during the past two years has he received letters from customers saying that his goods were not up to standard; and in each of these cases the shipment was repeated at no charge, and a personal letter went to each of the four telling them how sorry the folks at Sunny Brook were for the drop in quality which was due to shipping. Today every one of those four people is a fast and profitable friend of Sunny Brook Farm and its jovial proprietor.

Joe's plan has made good and he has proved conclusively that it is one of the best ways in the world to sell farm produce of almost any nature, provided one goes at it intelligently, and honestly.

True, the plan hasn't made Joe independently rich and he hasn't accumulated enough of this world's goods to permit him to retire, but it has brought him independence and a profit on his products never possible before. He has a very comfortable bank balance today, and is seriously considering the purchase of additional land with the idea of developing his plan further.

The plan had made the Ivey's many fast friends and Joe today will proudly show you a whole file of letters praising the products of Sunny Brook Farm.

Because I know a great many people are interested in his experience and because I believe they can profit by his experience, I persuaded Joe to give me a copy of some of the letters he used so successfully to sell various products. The letters are printed with this article and I believe everyone who reads this can use some of them advantageously.

Letter number two sold hams and bacon from seventy-six pigs, at a plus price. Other people's apples went begging at a low price, but letter number three sold Joe's apples away above market price within three weeks. And letter number one sold all his surplus honey twenty-five per cent above current market price.

Copy of Letter Number One

SUNNY BROOK FARM
at
Ladonia, Texas

Mrs. John J. Prospect,
247 S. Marsalis,
Dallas, Texas.

Dear Mrs. Prospect:

Sunny Brook Farm is one of those places where quality comes before quantity—even my Italian bees seem to know that. Yesterday we opened up the beehives and took out the first clover honey of the year. I wish you could see it—every comb is a masterpiece of sweetness—pure and golden—just the essence of goodness. It's hard to realize just how delicious this Sunny Brook clover honey is until you have tried it, as I have, on a brown and piping hot waffle.

There isn't so very much of this honey available—the clover season is very short and every pound of it is precious and represents the work of thousands of bees—but some of it is going to be sold and I would like to have you have some of it. Sunny Brook Farm is only two hours from Dallas and the honey will be on its way to you two hours after we receive your order; that is, it will if any of the honey is left by then.

Yours very truly,

Sunny Brook Farm,
Joe Ivey, Owner.

Copy of Letter Number Two

SUNNY BROOK FARM
at
Ladonia, Texas

Mrs. John J. Prospect,
247 S. Marsalis,
Dallas, Texas.

Dear Mrs. Prospect:

Uncle Billy Bates is real fussy about the way he cures ham and bacon. He is a real Texan, and the way he goes about curing meat is a caution. Of course it's rather expensive, but Sunny Brook Farm has the habit of quality, so we let Uncle Billy have his own way about it.

"Good ham and bacon starts with the suckling pig," Uncle Billy says. He picks out only the choice pigs, too—little fat, white rascals—and then after they are practically hand raised

on the choicest of food. And clean? Sunny Brook Farm does not know what mud looks like.

After butchering time Uncle Billy is a busy person—I hardly dare speak to him. Everything must be just so; the pickling brine must be made just so—just the right proportions of pure salt and sugar and boiling spring water. Then, when the water is cold, the hams and shoulders are placed in it for one night. Then they are taken out and washed in clear, cold water and placed in a new brine of the same mixture. Then comes a day when they are taken out and carried to the smoke-house, where Uncle Billy hovers around a slow smoke of fragrant hickory and sassafras roots. "Can't smoke meat too fast," he claims.

Well, anyway, the results he gets certainly seem to justify all the time and trouble spent. Sunny Brook Farm hams and bacon are so good, so tender, so appetizing that you just can't get enough of them. I wish you'd try some of them, and see if you don't think Uncle Billy Bates is a real artist when it comes to making hams and bacon just a little better than any one else. Just fill out the attached order blank and send it to us and your order will be on its way to you tomorrow.

Yours very truly,

Sunny Brook Farm,
Joe Ivey, Owner.

Copy of Letter Number Three.

SUNNY BROOK FARM
at
Ladonia, Texas

Mrs. John J. Prospect,
247 S. Marsalis,
Dallas, Texas.

My Dear Mrs. Prospect:

It was hard work "hand-picking" the apples in our little orchard, but we felt that it was time very well spent, because this year's crop was just the best we ever had. Our delicious apples were particularly fine this year—they are not so large, but each one is perfect and sound. After we picked the apples, we placed each one carefully in a bin so not one of them was bruised. You know it takes some time after a Delicious apple is picked before it is in its best eating state. Ours are ready right now, and the past week we have been sorting them out, and we have taken the choice yellow beauties—real eating apples—and carefully wrapped each one in tissue paper and placed two dozen in a box.

We think these apples are the best apples we have ever eaten, and out here at Sunny Brook Farm we think we're pretty good judges of quality, as you know. I wish you would try some of these apples and tell us what you think of them—I'm sure you will like them and if we get your order tomorrow they will be mailed the very same day.

How many boxes, please?

Yours very truly,

Sunny Brook Farm,
Joe Ivey, Owner.

Requeening Cross Bees

By B. Blackbourn
Australia

IN the June number of your Journal I was particularly interested in a question regarding the requeening of cross bees. "Arkansas" suggested placing a new brood chamber containing empty combs, the new caged queen, and one frame of brood with all the bees shaken from it, on the old location, on top of this a queen-excluder, then a super of empty combs for honey storage, a super-clearer with bee escape board, and the old hive with queen and brood on top. You suggested putting more than one comb of brood in the new hive.

Now all this arranging is no slight job with bees that are really savage, also it is notoriously difficult to get a bad-tempered strain of bees to accept a new queen. My experience leads me to think that it is a mistake to give any brood at all until the new queen is accepted; if any brood is in the hive she is likely to be either killed at once or else tolerated until queen cells are started and then thrown out.

Some years ago I had a hive of bees that might well be described as "vicious devils." To go near the hive was to ask for trouble, to touch meant that the bees poured out in numbers and attacked viciously, no smoke would check them, indeed, the first whiff seemed to act as a signal for a sortie. I am pretty well immune to bee poison and can stand stings as well as most beekeepers but these bees were the limit, and I felt like sulphuring the lot. However, I determined to requeen them, and the method I adopted proved entirely successful with the minimum of trouble.

A hive was prepared with empty combs and foundation, and the new queen was placed in a Miller cage and wedged between combs. In the middle of a hot day when the bees were flying freely, the old hive was very carefully moved to one side, so carefully that the bees hardly knew that they were being moved until it was done, and the prepared hive and queen put in its place. The homecoming bees finding the old queen gone and no brood from which to rear another, promptly accepted the new one. The following day I gently moved the old hive to another position with the result that in a short time all the old bees had left, and I was able to open the hive with no trouble and pinch the old queen. I left them queenless till all the brood was too old for them to rear queens from, then destroyed any queen-cells started, and placed the brood back on the stand on top of the new hive. You will see that by this method it was unnecessary to open the old hive till all the old and vicious bees had left it, and that when returning the brood at the completion, placing the old hive back on top of the new one was only a matter of seconds.

It is true that there was some slight check to the stock as a whole, but this was mostly made good by the return of the brood, and the check was not so great as it would have been if the new queen had been killed. The whole thing was carried through with the minimum number of stings.

Leaving Honey on Consignment

In the August number, Carl Kalthoff mentions leaving honey on consignment. Combined with advertising, I have found it to be a satisfactory way to sell honey.

Stores willing to put in only one 5-pound can on straight sale, were willing to try a half dozen when left on consignment and the cash paid on delivery on later sales.

No doubt some stores tried a half dozen pails just to get rid of me and I had to assure them that I would take the honey back if it did not sell. They all turned out to be good customers, however, before the season was over.

A store with a few jars of honey on hand which have been in stock two or three years, will not buy honey for cash. It is up to the honey producer to show the storekeeper that his honey actually sells.

Anthony Benicewicz,
Wisconsin.

Another Honey Bulletin

"Honey Thruout the Year" is the title of a new bulletin by Mathild Peters and Florence J. Atwood, recently published by the Extension Service of the University of Nebraska. The bulletin is nicely printed and is unusually attractive. Its appearance is such as to inspire confidence and make the housewife wish to try the recipes.

The opening pages are devoted to a description of the nature of honey and its proper care. This is followed by numerous recipes for use in connection with other products commonly available and for every occasion. We would suggest that every cook among our readers will do well to write to the Nebraska University at Lincoln and ask for a copy of this bulletin.

Wintering Bees at a High Altitude

By C. R. Walker
Western State College of Colorado, Gunnison

FOR experimental purposes at an altitude of 7650 feet two three-pound packages of Italian bees were purchased from Colusa, California in the spring of 1932. One of these was divided about July 1 to make three colonies. One hive produced about 115 pounds of extracted honey during the summer; the other two (the divided colony) produced less.

An attempt was made to provide different conditions for wintering. One hive was packed in a two-story hive with a super of shavings and sawdust to absorb the moisture. Only four frames of honey were set in the center of the hive body above. After that was used the bees did not go below and probably starved. C. L. Corkins (1) of the University of Wyoming Agricultural Experiment Station concludes from his experiments that the bees starve rather than freeze at low temperatures. Another hive was placed on the flat roof of a heating plant and was protected only by a pasteboard box. This colony wintered in good condition since there was warmth from the boilers below.

The other colony was in a single hive body and on November 5 its total weight was 58 pounds. On that date it was put in a small cellar walled off from the basement of a dwelling. After ten days there was such evident unrest the hive was moved to the open and packed with about two inches of sawdust and shavings with a super filled with the same material to absorb the moisture. The hive was not opened or molested during the winter. At one time there were eleven inches of snow but the average was about six. This hive wintered in excellent condition with a smaller loss of bees than the one having the warmth from the roof.

For the last ten days of November the mean high temperature was 50.7° F. with the highest of 58° F. on Nov. 21 and the mean low was 4.7° F. with the lowest of 2° F. on Nov. 25. In December the mean high was 28.1° F. with the highest of 47° F. on December 1. The mean low was 5.8° F. below zero with the lowest of 28° F. below zero on December 26. There were ten nights in the month when the temperature exceeded 0° F. with the maximum low of 20° F. on December 1. In January the mean high was 24.2° F. with the highest of 39° F. on January 4. The mean low was 13.6° F. below zero with the lowest of 27° F. below zero on January 2. On January 20 the highest temperature for the 24 hours was 2° F. and the lowest was 14° F. below zero. There were four nights of the month on which the temperature was above 0° F. with a maximum of 9° F. on January 18. In February the mean high temperature was 26° F. with the highest of 39° F. on February 24, 27, and 28. The mean low was 13.6° F. below zero with the lowest of 40° F. below zero on February 8. There were three nights when the temperature stayed above 0° F. and the maximum low was 13° F. on February 13. On March 2 the temperature rose to 48° F. and the bees had their first cleansing flight since November 21—a period of 14 weeks and two days. The only wind recorded in this period was on February 8 and 9. The total precipitation for the period was 20 inches of snow loose measure. Corkins and Gilbert (2) state "The winter cluster is formed at a temperature of approximately 13.8° C. (57° F.)." The last date in the autumn of 1932 on which such a temperature was reached occurred on November 21 and the next date was March 28, 1933 when the temperature of 59° F. was reached, but the cleansing flight was taken on March 2 as stated above.

An analysis of the above weather conditions shows the winters are severe. Such experimentation as is being carried on by C. L. Corkins of the University of Wyoming may some day accurately determine the causes of death in wintering, but at present as Corkins suggests, the actual findings are at variance with the theories formerly held. It is only a guess, but it seems the most important factor in wintering besides ample and good stores is to keep the colony dry. At this altitude the relative humidity is very low so that moisture due to colony activities is readily dissipated causing little or none to collect on the inside of the hive, and if allowance is made for its escape into a super of absorbent material, the colony will probably winter even though temperatures are low.

Literature Cited

1. Corkins, C. L. The Metabolism of the Honeybee Colony During Winter. University of Wyoming Agricultural Experiment Station, Bulletin No. 175, November, 1930.
2. Corkins, C. L. and Gilbert, C. S. The Metabolism of Honeybees in Winter Cluster. University of Wyoming Agricultural Experiment Station, Bulletin No. 187, March, 1932.

Maybe It Was Pollen

On page 344, Allen Latham commenting upon my narrative on page 304, points out that cows do not sweat and that it could not have been the residue of perspiration that the bees were after, raising the question of whether it might not have been real pollen which had found its way into the hair of the animals, or meal which had got there when the cows were fed grain.

I mentioned in that article that the cows were not being fed, but did not mention that there had been no natural pollen for months, the time being February of one of the driest years on record. However, I did notice that the hair of the cattle contained much fine flaky substance like dandruff and it may be that the bees were seeking that. I regret that someone with Mr. Latham's penchant for scientific observation and investigation was not present, for it is likely that if he had been the phenomenon would have been explained.

The Mexican owner of the cattle said that the bees had annoyed them in the same way the previous year, so it may be that they will do so again next year and if they do I shall certainly try to record the spectacle with a camera.

Anyway, Mr. Latham's reference to the lack of perspiration among the bovine species has aroused me to a determination to learn just what sort of cooling system they do have.

H. E. Weisner,
Arizona.

[This needs further investigation before any decision is reached.—Ed.]

Death of Australian Beekeeper

We learn recently of the death of Mr. F. R. Beuhne at Melbourne, Australia which occurred on June 23rd.

Mr. Beuhne was one of the most prominent beekeepers and writers of Australia and died in his 74th year.

Besides being a versatile writer in the different bee magazines of his country and in fact being represented in almost every bee magazine in the English language, he has also written two books on beekeeping, "Beekeeping in Victoria" and "Honey Flora of Victoria." His passing is a distinct loss to the beekeepers of Australia.

An Italian on American Foulbrood

We are in receipt of a pamphlet of 24 pages on American foulbrood by an Italian scientist, Dr. Carlo Foresti, entitled "Researches on the transmission of American foulbrood through the ovaries of the queen."

The writer of this gives five microscopic, engravings of the organs of the queen that has been fed with material containing bacilli of the disease and also of ovules inoculated with the disease.

His conclusions are that a queen, fed with bacilli in the food given her is not likely to transmit the disease. However, he does not claim positive probability of this at all times and proposes to continue his experiments. He gives a list of 53 beekeeping works consulted.

Winter Apiary of W. H. Turnbull and Son

How is this for size? This picture was loaned us by Editor York, of Bees and Honey, and is the winter apiary of W. H. Turnbull and Son, British Columbia, comprising 870 colonies of bees. It took two shots of the camera to get in this many hives and the total number are not all in the picture. It represents about half of the Turnbull apiaries and will be distributed to about 20 locations in spring.

Carniolans in Faraway Australia

By G. H. Pfeiffer
South Australia

JUDGING by the many comments appearing in the American Bee Journal it would appear as if quite a difference of opinion exists as to the value of different races of bees. Perhaps a few lines regarding the position in Australia would be of interest to your readers.

Up to about five years ago there existed in this country the Italian, the German Black, and crosses between the two. While an occasional Carniolan or Cyprian queen had been imported, no attempt had been made to raise them pure, so they were soon absorbed by the two races mentioned.

About four years ago a start was made in breeding pure Carniolan queens in Victoria (one of our states) and two years later another breeder and myself started raising them in South Australia. Testing the pure stock under the many varying conditions of our climate, one thing soon became apparent. It was the amazing length of life of the worker bee. A careful comparison with the best surplus gatherers of other races showed that Carniolans only had about two-thirds the amount of brood, and yet were equally crowded with bees. This could only result in the storage of a larger surplus, and experience through a heavy season has confirmed this expectation. When one remembers that by far the largest part of the nectar gathered is consumed in brood rearing, the significance of longer life will be realized, especially in a poor season.

I would like to say right here that this length of life has also been the reason for complaints, inasmuch as thirty combs were insufficient to house the colonies, and with no more supers available, it could result in only one thing, swarming. However, a good big swarm of Carniolans will make most other bees look silly if caught at the beginning of a honey-flow. Their uniform gentleness, quietness on the comb, ability to winter well, build up quickly in the spring and little inclination to rob are also some of their good qualities.

The Editor has often stated that it is hard to recognize mismatings with the black bee, and this is true if selection is based on color alone. A cross with a pure black drone will always bring out the savage temper the same as with the Italian, as has often been remarked by Mr. Dadant. On the other hand, the crossing of some Italians with blacks escapes unnoticed if the three yellow band theory is accepted as the test of purity. I can readily agree as to the good qualities of some Italians, but to produce the most surplus honey with the least outlay in labor and material, give me Carniolans.

As regards their distribution in Australia, I may say that they have had a hard struggle to secure an unbiased test at the hands of our beekeepers. The Italian has for so long received the unstinted praise of being the near perfect bee, that it seemed inconceivable that they should have a rival, and a black race at that. Even now, after having purchased one or two queens, and finding them right amongst the leaders in their apiaries, some hesitate. Of course, some have almost completely requeened their apiaries with Carniolans and I feel quite confident their popularity will continue to increase. As regards the raising of pure stock, the government has assisted by proclaiming a sanctuary where only the Strgar strain of Carniolan may be kept. As regards the qualities of Caucasians I cannot give an opinion as I have not been able to get them. If any of your breeders think they can deliver them alive, would they please get in touch with me.

Loadstone of Endeavors

If a swarme be checked and stunted with bad weather presently after it is hived, or if it be small, or very late in the year, the bees will be carelessly desperate, and gather nothing to purpose, for they are out of hope to get enough for their winter's provision and maintenance, and as good never a whit as never the better. . . . Good is the loadstone of all endeavors. If there be any good present, hope makes us labour to increase it; if there be any good to come, hope labours to attain it; but good there must be at least in hope or expectation or else all endeavors will flag and wither away to nothing. —Culled from an early writer by W. H. Hull.

What Is Wrong With Honey?

By Antonios Petropoulos
Greece

THERE is no doubt that beekeeping all over the civilized world faces its biggest problem, which is soon to be solved, if this science is to continue to progress and prosper, in the future, as an industry. The honey marketing problem will sooner or later confront any real lover and investor in the bee business. No one can feel happy and safe when his fellow craftsmen suffer from something wrong in their occupation.

All real beekeepers propound the question: What is wrong with honey? What an amendment to the honey business routine can change the present status of things in beekeeping and make honey production our only and chief problem? In the recent issues of the American Bee Journal have appeared many interesting and different answers from prominent personages in our profession. Some argue that standardization is the only way out of the present slump while others claim the contrary, that is that honey is all right as it is. I think that honey is not all right as it is and that there must be something soon done to correct or rather heal the aching scourge affecting and disturbing the whole bodily structure.

Standardization is a good idea, but the question is how to do it. We cannot acquaint all people with the different properties and qualities of honey except if we make them all beekeepers. The standardization advocates contend that the only way to effect this plan is to select a few of the best grades of honey, to push them to the market, and to discard all the others for uses not yet found. This way, however, of standardization cannot prove beneficial to the whole industry in general and it will, if effected, discourage many honey producers—and honey consumers in a considerable ratio—and it is doubtful even if it eventually will solve the honey marketing problem.

Examining the different kinds of honey, we find that all the differences between them lie in the color, taste and flavor. In my opinion, color does not play an important role in quality. Does it in any of our other foods? I suppose, no, if taste and flavor meet the demands. On the contrary, color gives a desirable and pleasant variety, and color is needed in some cases. Do not all people like variety? In comparing the different kinds of honeys, we find superior and inferior qualities according to their taste, flavor and color. This fact (that all honeys have not the same taste and flavor value) should force us to conclude that honey is not as a whole perfect in itself, and pushing it to the market in its so varied properties and shortcomings, and to be used indiscriminately for whatever purpose, makes our customers somewhat puzzled and doubtful concerning the value of our product and our integrity. Well, are we to blame for the difference in the color of our product, or in taste, or even in flavor?

Honey must not be considered as a rule perfect in itself as far as the different ways of consumption are concerned. It must be thought of as a raw material, the same way as sugar beets and sugar canes from which sugar is manufactured. Sugar beets and sugar canes are far more healthful to eat raw, but they would not have so much commercial value if it were not for their convenient and standard by-product, sugar. The same is true of milk and its by-products.

In view of all the foregoing the question arises: Can we improve upon the different qualities of honey? In my opinion the answer must be affirmative. Then the next question is, how to do it? To be sure, in order to have the best possible results we need the common collaboration of all interested in our product, but by your kind permission I will give herewith a few hints. Let us examine in succession the qualities and differences.

Color.—As above stated, we know that variety is one of the most pleasant features in every line of human endeavor as well as in natural creation, and manufacturers of many foods and other articles (liquor, pastry, confectionery, producers of fruits, manufacturers of fabrics, etc.) have not overlooked this trait of human nature to like variety, especially that of color. The fact that people usually prefer light colored honey is due to the impression they have gotten that the differences in taste and flavor are due to some adulteration apparent in the darker colors only. Besides that, there are some cases where a colored sweetening is far better. Also, we know that colored honeys are richer in rare minerals and have been proved more nutritious than the light colored ones. Why, then, exclude the colored honeys from the market? On the contrary, I believe that if they be properly classified it will work to their advantage. The extracting of colloids, also, from the honey, becoming, in the course of time a possible practice, will conduce to giving honey a clear appearance. Additionally honey must be kept from granulation and preserve, under all conditions, the color of its liquid state. People dislike granulated honey though they may know that granulation is a property of the honey. They think that honey which does not granulate is superior. Non-granulated honey has better appearance and it is ready to be used in any moment it is needed. A noted beekeeper here in Greece has reported a great success in selling his honey, by preventing its granulation.

Taste.

What can we do to improve this property of honey? The sweetness of honey is due to the different sugars contained in it. Honey contains glucose (chemically figured as C6 H12 O6—carbon, hydrogen, oxygen). This glucose is a third less sweet than the common sugar or cane sugar. It is cheap and therefore it is used, in some countries, in adulterating honey. Honey contains also, in combination with glucose, fruit sugar (chemically figured C8 H12 O6). The fruit sugar is the best of all sugars. It is sweeter than the cane sugar. In small quantities and in combination with glucose and fruit sugar, honey contains also cane sugar (figured C12 H22 O11). I do not exactly know what a role the above mentioned sugars play in honey's taste and sweetness. Therefore I call upon the experts to decide if honey's taste can be improved by enriching it with fruit sugar or cane sugar or something else.

Flavor.

I think that the most we can do to improve honey's quality regards its flavor. The flavor of the different kinds of honey is due to the essences contained in it. The liquor manufacturers and others know much about flavoring their products with essence oils. There are numerous kinds of fine essences, better than those contained in the honey. The celebrated honey of Mount Hymettus owes its excellent fragrance and taste much to the thyme essence contained in it. It is a thyme honey. I produce also excellent thyme honey. Many bushes give excellent essences. I think that the sticky and runny property of honey is a good advantage when it is not granulated but packed in the proper containers. Flavoring could be done by allowing cold honey to drip or spin through a tank containing warm essence vapors. Honey well flavored and improved in all possible ways in quality, would make the most delicious sweets for the confectioner and the housewife and perhaps save them the cost of some other spices otherwise needed in making their products. Honey, in the course of time, would be considered by them as an ideal sweetening article. In my opinion, honey must be, and can be, improved

upon its qualities; it is a more or less raw material found in the hive as the bees have mined it from nature's vegetable mines. The bees do not manufacture honey, they are simply mine workers for us in honey production and we must manufacture this flower output to suit every appetite and need of men.

I believe, that honey, despite all this treatment, will preserve all of its merits as a health building food containing yet enough quantity of vitamines and other rare minerals, not found in other industrial sweets.

So honey could be standardized in color, appearance, (always liquid) taste, flavor, and other properties for every purpose for which it is needed.

However, one might contend that this kind of treating honey cannot be done by every individual beekeeper. This assertion is right, but I think that the treatment must become the work of a special industry. All beekeepers in such a case will have to sell their honey directly to the honey manufacturers. These honey manufacturers, buying all kinds of honey and all qualities, it could be possible for them, to classify them—according to color or other lines—to, say 10 grades, and treat every grade in such a way as to suit it to a special use—for which it is intended. It is my opinion that by judicious and continuous experiments it would be possible to make of honey the best sweetening articles offered for sale to the public.

Another objection would be the economic value of this plan. Would you not, however, be more contented in selling your honey at 5 or 6 cents a pound if you could sell it to the honey manufacturers, as soon as it is extracted? In my opinion the cost of treating would not be so great. Well treated honey offered to the consumers at 20 cents a pound would not be considered dear once they have been convinced of the merits of the product they are buying. Are there not other groceries of less importance which are selling at that or even higher prices? People do not count much on the price when once convinced of the value of the needed product. Honey treated in the above suggested way would create an unlimited demand, perhaps ten times that of today. The most successful industries are those whose products have been standardized and marketed through special concerns instead of the producers themselves. All real or professional beekeepers, unburdened of the honey marketing nightmare and concentrating their efforts on honey production, would make their industry far more successful and profitable than it is today.

Honey Labels and Repeat Sales

Attractiveness, Plus "Health Appeal" Makes Increased Honey Consumption.

By Morehouse Brothers
Minnesota

Yes, we all agree that a honey label should be attractive. A label should have color and dignity without being gaudy or ridiculous. But more than that! When we have succeeded in getting the honey pail into the kitchen we do not want it to be stuck away on the back of a high or a low shelf and the honey seldom used. We want that honey used and then a disposition to buy more honey. How often the honey salesman is met with the words, "We have some honey left over from a pail we bought last year." Such common remarks indicate that most tables are graced far too seldom with honey. Naturally, the question comes up as to how the label might also serve to induce increased consumption of honey.

Then there are those people who will say "Honey never lasts in our house," and no wonder for they never had enough honey at one time to last longer than the novelty or temporarily to satisfy the children's sweet tooth. Home consumption of honey in quantities that counts for the beekeeper and at prices fair to the consumer, means honey in pails, or 60's —not in small containers. One never sees our competitor corn syrup put up in small containers.

To induce consumption of honey, we must arouse a desire in the housewife to put it on the table and to use honey in the preparation of foods. That is a lot to ask of a label and yet how much better for the label to carry words that aim at honey consumption than needless words. For instance, how often a long paragraph deals on how to treat crystallized honey, when one short sentence does as well. "To liquefy crystallized honey, warm slowly," might be suggested. Few people are so dumb that they need detailed instructions in order to keep from burning honey. To stress PURE HONEY, as so many labels do, casts a reflection upon our product, and the Pure Food Administration. Your name and address at the bottom of the label complies with the law and tells who is responsible for the contents of the pail, without saying "From the Apiaries of," "Put up and guaranteed by," or similar wording. In this way space may be secured to allow for a message on the label that, if successful, will mean a repeat sale sooner than otherwise.

The thing we want is to induce the consumer to eat only a little honey regularly each day and not to gorge on it once or twice in a lifetime. It is the small amounts of butter regularly consumed that provide a steady market for that article. So, we should adopt as a slogan something like this: A LITTLE HONEY EVERY DAY IS GOOD FOR YOU. Then follow this heading with the WHY of honey being good for one and the HOW of using it. For instance, "For energy and general good health, eat some honey every day—on cereals, biscuits, fruits, etc.—or in the cooking. Doctors recommend it." Or, support the slogan with: "Honey is a 'Natural Food,' to use on cereals, biscuits, fruits, etc. Doctors recommend it for valuable minerals it contains." That's about as much as one may say on a pail label without overloading it, with the weight and other things suggested, and if a health appeal like this will not create more honey consumption, then somebody please tell us what will?

More detailed information about cooking with honey, in the form of leaflets, with recipes thereon, could be held on the lid by a band and carried into the home with the honey.

Wood Charcoal for Starting Smoker

Secure a quantity of wood charcoal, powder it with a hammer on a board or something flat. Put the powdered charcoal in a can or glass jar, then stir in enough gasoline or kerosene to make a thin paste. It is now ready to use. Just put a small quantity in the bottom of the smoker, light it, pile on the fuel, work the bellows and watch the old smoker come to life.

A small jar of this paste can be carried in the pocket at all times. A jar should be left at each yard so as to be handy. If kept tightly covered, it will last indefinitely. Care should be taken in using this paste. Always cover the jar before applying fire to the smoker as the whole thing might catch and it doesn't put out easily. I have used this now two full seasons and find it a wonderful time saver.

Orbie E. Hopkins,
Oklahoma.

Death of Leading Irish Beekeeper

The Reverend J. G. Digges, editor of the Irish Bee Journal, died quite suddenly on the 8th of August, of heart failure, while conducting service in his church.

This information was received from our English friend Mr. Robert O. B. Manley of England.

Mr. Digges was the author of a book on bees which had reached the number of 35,000 copies.

The magazine of Mr. Digges will be published for the last time in the September issue.

from the Little Blue Kitchen

BIRTH OF THE PEARL

(For child readers and older folk with child hearts.)

Once there was a little oyster
In whose house of shell
Everything was snug and cozy—
All things going well.

Then a gritty, scratchy pebble
Wriggled in one day,
And began to take the oyster's
Peace of mind away.

But wise oyster soon remembered
A good thing to do
To transform that chafing pebble
Into something new.

So, instead of fuming, fretting
Or of making moan,
He just wound a scarf of rainbows
'Round the ugly stone.

And the rainbow wrappings settling
As they ceased to whirl
Changed the ugly little pebble
To a glorious pearl!

Lida Keck-Wiggins.

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THE foregoing verses contain a bit of philosophy which if put into daily practice would not only transform individual lives, chafing under pebbles of discord and discontent but would transform even so great "individuals" as nations.

It is always possible to change a pebble into a pearl if one knows how to be a "Polly Anna" or if one is not too high brow to learn a lesson from the humble oyster.

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Honey Lady was on a browsing bat recently . . browsing among old cook books reposing on the shelf of Blue Kitchen, and she unearthed a recipe or two which should be of value and interest to Blue Kitchen readers. Sometimes our grandmothers DID know how to make some exceedingly delicious things. Here is one that Honey Lady tried right out and which should come in very good for an October dinner dish when just the family are dining together.

The name of it is "Jellied Grapes."

Ever eat any? Well, here's how to "fix" them.

1/3 cup boiled rice.
2 cups of seeded grapes.
½ cup water.
½ cup extracted honey.

Stir the rice and honey together; then sprinkle this among the grapes, while placing them in a baking dish; pour the water over the mixture; cover close, and simmer two hours in the oven. This can be served warmed as a sauce or cold as a pudding. It was as a pudding Honey Lady served it.

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Another nice dessert for cool evenings is made as follows:

Chocolate Cream Custard.

¾ cup extracted honey.
½ teaspoonful almond flavor.
3 cups scalded milk.
4 eggs.
2 ounces Chocolate.
½ teaspoonful salt.

Add the honey to the scalded milk, blending carefully; then pour on to eggs, slightly beaten, add salt, flavoring, and the chocolate which has been melted over hot water.

Strain into individual moulds. Set in a pan of hot water and bake in a moderate oven until firm. Chill, unmould and serve with chocolate sauce.

If one has not a favorite chocolate sauce, here's how Honey Lady likes to make it and it should be made and poured over these chocolate custards.

Chocolate Sauce.

1 cup milk.
2 egg yolks.
¼ cup honey or sugar.
½ teaspoonful butter.
2 ounces chocolate or ¼ cup cocoa.

Cook all ingredients in double boiler, stirring constantly until the spoon is coated.

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Soft Honey Cake is nice to eat with this. This is made as follows:

Soft Honey Cake.

½ cup butter.
1 cup honey.
1 egg.
½ cup sour milk.
1 teaspoon soda.
½ teaspoonful cinnamon.
½ teaspoonful ginger.
1 cup flour.

Rub honey and butter together; add egg well beaten then the sour milk and the flour sifted with the soda and spices. Bake in a shallow pan. (Contributed by Lillian Hodge.)

In these October days there are many dainty desserts that can be made with apples, honey-sweetened. Here is one that filled Blue Kitchen with a delicious odor the other evening, and which pleased the palates of the family so well it is one of those blessings that are being passed on to all Blue Kitchen readers.

Apple Tarts.

Take patty pans and line with your best pie crust; fill with chopped apple, sweetened to taste with extracted or granulated honey; bake in a moderate oven; let cool. Just before serving, top each little pie with a fluff of whipped cream. If you want them to look particularly gay add a Marischino cherry or a bit of red jelly.

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Honey Hints for October Meals.

Always remember to have a little pot o' honey on the table when serving hot biscuits. The combination is ideal.

— : —

Honey adds a real zest to hot corn bread too!

— : —

An authority says that "honey will make rich and delicious cakes without the use of butter or other shortening."

— : —

A bee CAN sting like anything
But he would rather spend his hours
In hunting sweets within the hearts
Of lovely little flowers.

L. K. W.

When You Entertain

By Mrs. J. Irl Pritchard
Wyoming

Serve good things made with honey. It is one of the best ways to help your husband advertise his product and you can find many delicious recipes that call for honey. Try serving this Honey Sponge and see if your guests do not like the honey flavor.

Honey Sponge.

4 eggs — 2 tablespoons water
Pinch of salt — 1 cup flour
1 cup honey — 1 tsp. baking powder

Beat the eggs well until lemon colored. Add pinch of salt and stir in honey. Sift baking powder with flour and add half to the batter, add water and then the balance of the flour. A teaspoon of lemon extract or other flavoring may be added if desired. Bake in a large, square cake pan in a moderate oven. Cut in squares and serve with whipped cream.

Always sweeten your whipped cream with honey but be careful—don't use enough honey to make it sickeningly sweet but just enough to give it that added flavor. I use about two tablespoons of honey to a half-

pint of cream. You can vary this dessert by spreading the squares with crushed pineapple, sliced bananas, or berries before topping with whipped cream. If you do not wish to spread with fruit but want to give your dessert a decorative touch, spread your whipped cream on the squares and put a cherry or dot of strawberry jam on top.

Your friends and your family will enjoy this inexpensive Honey Devil's Food Cake.

Honey Devil's Food Cake.

1¼ cups honey ¾ cup boiling water
½ cup shortening 1 tsp. baking powd.
1 teaspoon salt 2 cups flour
2 eggs, unbeaten 1 teaspoon vanilla
½ cup cocoa 1 teaspoon soda

Cream honey and shortening, then add ingredients as called for and, after adding them all without stirring, beat vigorously until smooth. Bake in a moderate oven.

After you try this recipe for frosting you will keep it on hand all the time.

Comfort Frosting.

2½ cups sugar ½ cup honey
½ cup boiling water 2 egg whites

Boil sugar, honey and water together about 1 minute. In the meantime, beat the egg whites until dry. After the syrup has boiled 1 minute, add 1 tablespoon of it to the egg whites and beat well; continue doing this until 5 tablespoons of the syrup have been added. Cook the remainder of the syrup to the soft ball stage and then add all but approximately ½ cup to the egg whites. Cook the remaining syrup to the hard ball stage and add. Beat the whole mixture until it becomes quite stiff and will stand alone. It need not be beaten constantly, just enough to prevent a crust forming over the top. The icing may then be spread on the cake or stored in a fruit jar. It will keep from four to six weeks. When using the icing which has been stored, a few drops of hot water may be added to make the icing smooth and soft enough to spread. This icing does not crumble.

(Beat the egg whites in a bowl or container that holds at least three quarts.)

If your favorite salad recipes call for a little sweetening, try using honey and then when your friends ask for your recipe, specify honey. I use honey in making my salad dressings too. Of course, it doesn't take much but the use of a little honey here and a little there soon counts up. As an accompaniment to a salad, try these. Cream honey and butter together, spread thinly on small salted crackers and brown in oven. Be careful not to have your fire too hot. Anything made with honey seems to require a little slower heat to prevent scorching.

By G. H. Cale

A NEW honey has found its way to the supers in one of our apiaries this year, Thorowort or Boneset honey. There was an unusual quantity of this plant growing in the Mississippi bottoms and in some of tributaries where our bee yards are located. The honey from Thorowort or Boneset is very light in color and has decided smart in its taste, otherwise a thoroughly good honey and I imagine when blended with the other fall honeys, will lend some character to the blend as it comes from the extractor. In some cases bees gathered it in almost full supers.

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This brings to mind the subject of changing locations. Years ago, when in a school, under Dr. Burton N. Gates, of Massachusetts, he made the remark to a class that "Locations change every ten years." I think he is about right.

It's not hard to call to mind a number of examples of changed locations. About ten years ago the Red River Valley in the North was not considered a good place for bees. Now it is one of the best of the sweet clover locations. Ten years ago the bottom lands of the Mississippi River gave a fairly good flow from fall flowers every year, then drainage changed the value of these locations so that many of them were given up. Now the advent of controlled water levels in the river and abandonment of farms for drainage taxes, has brought back the old time fall flowers until it seems as though the locations were returning to their former position and importance.

The give and take of seasons, the changing of the seeding of plants and the eternal scrap for the survival of the fittest enters into this picture so that there is a constant and steady march which has a decided effect on the abundance or scarcity of nectar from year to year. It brings about profound problems to beekeepers, particularly those who have invested considerable in immovable equipment such as honey houses and fixtures.

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Ever try Decoy Hives? Some beekeepers place no value on them. Others manage to fill them with bees every year. This year a few Decoy Hives used in bee yards located in the river bottoms have resulted excellently and prevented the loss of a number of swarms that would otherwise have gone to the woods and have done little or no good. Old hives with one or two combs, set in out of the way places, up in the crotches of trees or on top of posts offer an easy home for the swarm seeking a new place.

— o —

Those Caucasians are becoming more and more of an exasperation in this country. It seems as though they gather more propolis here than they do in many other places and whenever there is the least chance to glue equipment together, they do it so thoroughly, that you have to break it apart to get at it. Frames lose their top bars, bottom bars, even their end bars. Combs become torn in various ways.

— o —

This year we are trying a square tank for honey, holding about 10,000 pounds, lined on the inside with suitable metal and fitted at the front two corners with honey gates with scales underneath the gates on the floor so that two men working at the same time can empty the tank. It is easy to empty it in about three or four hours with two men occupied, and it will hold the extracting for two or three days at the rate we do the work.

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In writing about some of the items in "All Around the Bee Yard," Carr of New Jersey makes this comment:

"I do not ever recall seeing in print, although it may be a common practice, what we in this state consider one of the most important manipulations in American foulbrood control. Our best beekeepers make it a hard and fast rule never to put anything on a colony before thoroughly examining the brood nest for disease and the same thorough examination is made before removing the honey. If then, a colony with a honey crop is found diseased, both the crop and the bees share the same fate—burned in a pit."

Right you are, Mr. Carr. When taking honey off with acid frames as we mentioned last month, the honey is set by itself until the hive is examined for disease and then loaded, and not until then. Putting supers on with the same practice is invaluable and with this firmly established in the manipulation each year, a big step forward is made in the control of American foulbrood.

THE EDITOR'S ANSWERS

When stamp is enclosed, the editor will answer questions by mail. Since we have far more questions than we can print in the space available, several months sometimes elapse before answers appear.

WINTERING IN GARAGE

I wish to ask in regard to wintering bees in a garage, would it be all right to set them one on top of the other? I have about 60 colonies.

If wintering them in this way, is no good, then please give me an idea as to the best way to winter them in this territory.

NEW YORK.

Answer.—It will not do to try to winter bees, confined to the hive, in a place where it freezes. If you wish to winter your bees in a spot other than their summer stand, you should use a cellar or a room where the temperature does not go below 40°.

If your colonies are fairly well sheltered from cold winds, they will winter all right on their summer stands.

POOR CONDITION—CARBOLIC ACID

I have kept bees for seventy years and in all that long time I have never had bees in the shape mine are today.

We have had no rain here for the last three months. Bees have not gathered enough to keep them alive.

I have thirty stands and there is a number of them starving at this time. They have plenty of food. Under the circumstances I do not know what is best to do. Please tell me what you think I had ought to do.

On page 316 of the American Bee Journal you make a statement about using Carbolic Acid for driving down bees out of supers. Do you think it will work and how should it be used? In your statement you speak about putting it on a cloth. I should think it would burn through the cloth in a short time. INDIANA.

Answers.—Carbolic acid is just sprinkled on a cloth and this cloth laid upon the top of the frames. It drives the bees down quickly. I do not know how much it injures the cloth but I believe the cloth will last quite a while.

As to your bees, if they have kept on breeding, they must have harvested some honey. Unless it is exceedingly dry, they ought to make enough to winter. I would give them sugar syrup for winter, if they are short, rather than honey for the latter would be surely more expensive. Besides, there is less inducement to robbing when sugar syrup is fed.

FEEDING SOUR HONEY—WINTER STORES—PACKING

(1) I have some honey which I have kept over for several months for the purpose of feeding to my bees. This honey smells sour. Will it be safe to feed to them? If not, can I fix it so it will be?

(2) Please tell me about how much honey I should have in an M. D. brood chamber to winter my bees on. I haven't the least idea how many frames, full or part full, it would take to make up fifty pounds. Probably none of them will be full and sealed but I would like some idea of how to estimate this so as to be on the safe side. I have no scales.

At present the honey is at the outside of the hive and the brood in the center as usual. When I pack my bees for outdoor wintering should I move the fullest frames of honey into the center of the hive?

(3) Our winters here are uncertain but it is well to prepare for one or two drops of temperature as low as thirty or forty below. This would be extremely low temperatures but they sometimes come. I plan to use hay for packing and tar paper outside of that, with a bottom board about four inches under the hive bottom for a base to the packing case. How much space should I allow around the sides and over the top of the hive for the hay?

I plan to put two or three thicknesses of burlap over the top of the brood frames when I pack for winter. Should I put the hay directly above that or put the hive cover on first? VERMONT.

Answers.—(1) Unless the honey is really sour, I believe you can evaporate the acid which it contains by heating it up to about 150 degrees.

(2) To judge by sight of the amount of honey that should be in combs of the M. D. size, you should figure on about half the depth of the comb in each of the ten combs of a hive. This will furnish you ample stores. Outside combs may be placed in the center, if they are not full to the bottom, in which case, there would be no room on them for the bees to cluster, as they cannot cluster safely on sealed honey.

(3) Hay is hardly suitable for packing unless it is pretty loose grass. I would figure on about four inches of this as a protection.

PEPPER TREES FOR WAX MOTH—REVERSING BROOD CHAMBER

(1) I have been told that bees kept near or under pepper trees would not be bothered with wax moths. Do you know if there is anything to this?

(2) Literature from a Company advertising in your journal states that if the brood-chamber is reversed (turned upside down periodically) the queen cells will not hatch and that swarming can be controlled in this manner. What do you say? If this method works how often should the brood-chamber be reversed? What method do large honey producers use to prevent swarming in cases where their out-apiaries are too far away to enable them to check for queen cells every ten days? ARIZONA.

Answers.—(1) I doubt that pepper trees would have any influence upon wax moths. But if they did, it would only delay the death of the colonies a little, for colonies that die from wax moths are simply following the laws of nature. Wax moths have never killed a healthy colony of bees and if you keep your colonies with good queens and sufficient stores they will never be destroyed by wax moths, for they can readily get rid of them. The only occasions where wax moths have thrived in hives of bees were in cases where the swarm had too many combs to protect and the combs which they could not cover were infested with moths.

(2) It is quite possible that inverting the brood chamber might cause the destruction of queen cells. But it is an awkward way of preventing swarming, as it would be necessary to invert the hives about once a week to obtain this result. Give your bees plenty of room, plenty of shade and plenty of ventilation and do not bother yourself with the possibility of swarming.

PROTECTION FROM MOTHS

Please tell me how to keep moths out of the hive. I have four and two are a little weak. They are pure Italian bees and have queens. Two are off the ground about six inches and the others about two inches. I went in them a week ago and got the moths out with burning sulphur. I have two books the "Honey Bee" and "A Thousand Answers to Beekeeping Questions." Is the way to get them out to go in and take them out? MISSOURI.

Answer.—The only way to keep moths out of the hives is to keep the colonies strong by having good queens in them and keeping them well fed. They will take care of the moths themselves. Burning sulphur is all right for the combs that are not in the hive. We burn sulphur in the room where the combs are kept during the warm weather. If the combs are in a room where it freezes when they are not in the hive, the moths will not reach them.

BEES ABOUT HONEY HOUSE

When extracting durifig the day time I have noticed the bees gather around the screen windows. I have wondered if the odor of honey which they thus get would cause them to get the robbing fever and this way get American foulbrood brought back to their colonies.

A certain inspector made the statement that foulbrood is seldom found among colonies where they are worked only for comb honey.

These two situations caused me to decide to extract at night or else have the extracting building a considerable distance from the bees.

Could you please comment on this or advise as to how far one should have the extracting building from the bees? KANSAS.

Answer.—We do not think there is any danger whatever of transmitting disease by extracting honey, if it is properly done. We extract in every apiary, in the day time. But our extracting room is well closed and very few bees enter it. If necessary the few bees that get in there could be killed if there was danger of transmitting disease. Comb honey producers run just as much risk of disease as careful extracted honey producers.

CLARIFYING HONEY

The writer wishes information on clarifying honey. If you have any information at this time that you can hand out I would be glad to receive it. INDIANA.

Answer.—The Dadants have been producing honey on a large scale since 1868, extracting honey since 1868 or 69 and have never seen the need of clarifying it in any other way and letting it settle and skimming it off or drawing it from what dregs might accumulate.

The great point is to extract honey only when it is ripe. Keep it in a dry, warm place. If it granulates, you may be able to sell it in that condition. If not, you should melt it slowly with the temperature not above 145 degrees.

STORES IN MODIFIED HIVES

I started this spring with fifteen colonies of bees in Dadant hives—two-pound packages on foundation. I had someone else care for the bees for me and have not yet taken off the honey, had no time. There is an average of three full supers for each colony.

I am about to take off the honey for extracting, and am confronted with the problem of knowing how much room to give the bees from now on. Honey is coming in from goldenrod, but that flow will be over in a week or two, and nothing but fall flowers will follow.

If I remove all supers now, is there danger that I will so crowd the brood chambers with honey that fall brood rearing will be prevented? Of the two dangers, crowding the brood chamber with honey so as to prevent brood rearing, or being short on stores in the brood chamber, which is the most dangerous?

Our conditions are somewhat the same. May I ask when you reduce your colonies to one hive body?

Should I not find that each brood chamber weighs the 120 pounds in the fall recommended by your coaching service, it is suggested that a super full might be put on for winter—the trouble being that the queen might go up in the spring. But could she not be shaken or put down and a queen excluder used, or could the super with the queen not be put on the bottom until she is up in it and then the two reversed? WISCONSIN.

Answer.—It is not too early to remove all supers. There is a possibility of the bees securing more honey than they can use without crowding the brood nest, but the danger is more likely to be to leave too little honey in the hives. Perhaps if you

waited a few days, say a week or so, you would not be running any such risk, as there may be a frost at almost any time now.

The weight of 120 pounds that you mention as necessary for winter is altogether too high. I do not know who gave you that figure. About 50 pounds of honey is all that a colony needs. In fact it may get along with less. If you put any supers on to supply winter stores, you had better use a queen excluder to keep the queen out of it.

KILLING THE DRONES

(1) Other than mating with the queen, what good are the drones? Is it all right to kill the drones, if you don't want them for mating purposes? Will it hurt the bees to kill drones during the entire year, if you don't want the bees to swarm?

(2) What time should package bees arrive in the spring, if you wish to feed them?

OKLAHOMA.

Answer.—Drones are of value only for fertilizing the queens. Some people claim that they are intended also to help keep the hive warm, but the fact is that the workers kill them whenever the weather turns cold, even in the good season.

The idea is not to kill the drones, but to prevent their being reared and thus save the cost of their breeding.

We keep drone combs out of our colonies, except two or three choice ones which we select for breeding. Thus we have no drones to speak of, except in the best breeding colonies. We advise you to do the same. You will always have a few drones reared here and there in corners, but the large production of drones in any but the choicest colonies will be avoided and economy will result.

Package bees should arrive in the spring just at the opening of fruit bloom. That is the best time.

NRA Honey Code

On September 15th a meeting was called at Chicago for all Honey Packers to formulate a code for the N. R. A. It was held at the Lake Shore Atheletic Club and about thirty honey packers represented. Since the Recovery Act has in mind two definite objects, first of placing more men to work and second those engaged in agriculture or business to make a fair profit.

It was unanimously expressed by each Packer that for the past several years they have been operating at a loss. The reasons were set forth as follows: (1) Price cutting due to incorrect information as to competitive prices. (2) Special discounts on advertising allowances. (3) Local honey Farm packers with no overhead no code labor, establishing low prices for the wholesaler. (4) Unfair labeling, excessive claims and short weight. (5) Premiums or free goods. (6) Small orders costing excessively to fill to the wholesale grocer. (7) Small packages unprofitable under one pound. (8) Shipping on consignment where stocks carried in warehouse.

Under the code agreement the Government wishes that in every line of business it should be operated at a profit and the Packers agreed not to sell below cost but at a reasonable profit. Terminating a fair selling price many things must be taken into consideration besides the honey itself, for example, the market price of honey, glass, caps, labels, transportation, freight, labor of packing, cash discounts, brokerage (if any), selling expense such as advertising, general overhead expense which includes office and factory administration, interest on investments, indirect labor, depreciation of factory and machinery, repair on the equipment, taxes and insurance. The general overhead as taken from an average of all is 22½% of the gross selling price. To this a profit should be added.

It is believed that if the local honey packers and producers take into consideration the above cost of packing honey it will result in a recovery of prices on honey. Any deviation from even the minority will continue to disrupt and depress the honey market.

It was the sense of the meeting that secret rebates, free goods, premiums, etc., constitute unfair competition and would be a violation of the N. R. A. code. The association adopted the grading of honey as passed by the 73rd Congress, House Bill No. 79-37 so that we may have a standard grading of honey.

The usual clause as to untrue malicious statements against competitors is to be stopped and considered as unfair competition. A committee was appointed to prepare a tentative code for the Middle States group which were represented there and after their approval to be presented to the Western States and Eastern States forming one large organization under one code which is required by the Government. An invitation to all those who pack honey is extended with this notice. The committee consists of Mr. Swanson of Council Bluffs, Iowa; Mr. Remer of Sioux City, Iowa; Mr. W. S. Straub of Chicago. The officers elected for the Association are: President, W. S. Straub; Vice-President, Mr. Remer; Secretary and Treasurer, Clifford F. Muth of Cincinnati.

The following committee on by-laws are Mr. Marshall, Mr. Andret and Mr. Aeppler.

A motion was made to set an annual dues of $5.00 per annum to cover the necessary expense in operating this organization.

In explaining the operation and functioning of the N. R. A. and code, it is necessary that a notice or invitation being given to all in that line of business to join in with such an organization. However if they do not join in and a reasonable representation have organized that when and if the code is signed by the President, it becomes a law and binding to all in the industry. Therefore let us suggest that if you are packing honey for sale to the wholesale or retail trade that you affiliate yourself under this code wherein you will have a voice in the conducting of fair competition in your business. Get in touch with the Secretary, Clifford F. Muth, Cincinnati, Ohio and make your check for $5.00 payable to the Middle States Honey Packers' Association. Signed, Clifford F. Muth, Sec'y and Treas.

National Honey Week, Nov. 13-18

The dates for National Honey Week are November 13 to 18. This year there will be no stickers issued as American Honey Institute did not feel there was enough time to get orders sufficient to make it worthwhile. There may be a special new leaflet printed on both sides in neat folder form for distribution. Prices about the same as for old leaflets. If you wish a supply, send in your requirements to American Honey Institute, 417 N. Few Street, Madison, Wisconsin.

Suggestions for Honey Week are free to beekeepers direct from the Institute. Outlines for exhibits are available at cost. Also small cards, postcard size, bearing a request for recipes and a sample honey recipe to be handed to customers so that they may send the card direct to American Honey Institute and get tried honey recipes from the Institute Testing Kitchen. The price of these cards printed on both sides with place for name and address of customer to send direct to American Honey Institute is 40 cents per 100, $1.60 for 500, $3.00 for 1000. Get your supply early.

Definite cooperation for National Honey Week has been given by the Kellogg Company who are working on a design for honey posters and honey leaflets available to beekeepers; by the DuPont Company who will have feature exhibits at their Empire Building Salon, New York City and Experimental Store, Jersey City. The Pabst Corporation with special recipes and information in

their national radio hour. The General Mills through Betty Crocker. The trade publications will probably have special features and magazines of national reputation will feature National Honey Week.

The American Honey Institute also has a set of radio broadcasts with the following titles:

1. New uses for Our Oldest Sweet.
2. Honey, An Important Flavor Food.
3. Honey Helpings for our Parties.
4. A New Respect for an Old Sweet.

Each broadcast ten cents, or set of four, thirty cents.

They also have a set of 1932 National Honey Week broadcasts given by Government Officials and Food Companies, six different broadcasts for 50 cents for the full set. There may be further news of radio broadcasts and National Honey Week items in next month's issue.

In addition to the above material, American Honey Institute is also having a colored folder leaflet printed for National Honey Week containing popular honey recipes giving the homemaker's simple rules for using honey, smart ways to serve it and sure recipes. Prices as follows—100, 60c; 500, $2.30; 1000, $4.15, postage added. Sample will be sent free on request to American Honey Institute.

It is best to make your request for any of the above material early in October so that there will be plenty of time to make shipments before the big week, so if you wish any of the material from the Kellogg Company or any of the other cooperating institutions, or from American Honey Institute as outlined, herewith, please get your order direct to American Honey Institute at the earliest possible moment.

Special Meeting to Establish a Code for Beekeepers

To All Beekeepers and Beekeeping Leaders:

I hereby call a meeting of the beekeeping interests of the United States for the purpose of formulating a marketing agreement in accordance with the Federal Administration Agricultural Act. This meeting will be held at Chicago, October 13 and 14 in the St. Claire Hotel, beginning at 10 A. M.

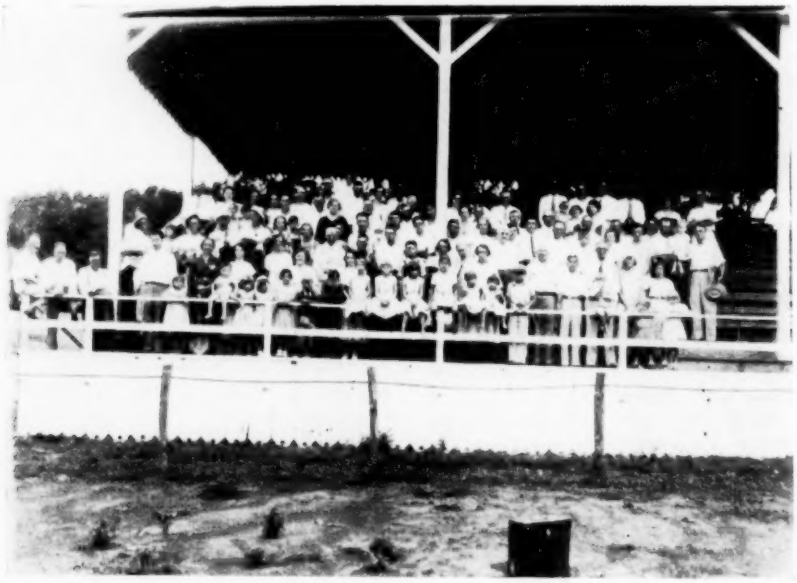
Of course, the conditions in various sections differ, and the arrangement for the beekeepers on the western coast may differ from the arrangement of the beekeepers in the New England States. Perhaps, therefore, the leaders in particular sections can hold meetings in their own territory and discuss their own conditions with the thought of having an agreement based on local needs ready to submit at the special Chicago meeting. I have taken the liberty to roughly divide the United States in several districts, and am asking leaders in these sections to get in touch **AT ONCE** with as many of your beekeepers as possible on this program.

In making up your local agreement or district agreement, may I suggest that you keep in mind the following: first, a marketing agreement which would contain wholesale and retail prices; second, a code for fair trade practices.

This letter is going to all state association secretaries, college heads of either beekeeping or entomology, and state apiary inspectors.

James Gwin, President,
American Honey Producers' League.

Big Meeting in Kansas



This is a picture of the state meeting held at Burlington, July 23rd, at Kelley Park. It was a big success with about two hundred in attendance. Dr. Parker of Kansas, Chas. Scott of Topeka, Secretary of the Entomological Commission and X. J. Kennedy of Lawrence were among those present.

The following officers were elected: E. L. Yount, Humbolt, Kansas, President; O. A. Keene, Topeka, Vice-President; Harold Sheppard, Wichita, Second Vice - President; Kathleen Williams, Burlington, Secretary.

In many parts of Kansas the honey production this year is poor but in the district where C. F. Schadd, Vermillion, Kansas lives, the crop is good. The proposition of protecting apiaries from thieves was the main discussion. Many apiaries were molested and others were entirely carried away last winter. Several beekeepers lost as many as hundreds of colonies by thieves taking off the upper hive body and leaving the brood chamber open in freezing weather.

The meeting next year will be in Wichita with The Arkansas Valley Beekeepers' Association.

Kathleen Williams, Sec.
Kansas.

Missouri State Meeting, October 16

The Missouri State Beekeepers' Association will hold its annual business meeting with election of officers on October 16th, 1933, at the apiary of Mr. Irving E. Long, Marceline, Missouri. We hope everyone who is interested will come.

Nina Scott, Secretary.

Ohio County Meeting

There was recently held at Newark, Ohio a meeting of the Licking County Beekeepers' Association. At this meeting, John King was elected President and E. W. Stough, Secretary.

Resolutions of condolence were passed on the death of one of their active members, Mr. W. J. Crawford.

Cook-DuPage Meeting

The last outdoor picnic and meeting of the Cook-DuPage Beekeepers' Association for 1933 was held Saturday, September 9th, 2 P. M. in the form of a tour starting at the apiary of Brother Johns located near Lemont, Illinois, where we had the pleasure of seeing an apiary managed in accordance with European practices of having the hives built into the honey house. All manipulation of bees was done inside the building, the hives being two frames in length, ten frames wide and one frame high, the brood nest confined to the front ten frames and surplus honey taken from the ten frames in back of hive. The front of each hive was painted in a novel way and combination of

colors so as to prevent drifting of bees.

We also had an added attraction in the form of a table upon which were many of the prize ribbons won at the Fair this year, along with samples of the honey and wax that won them.

Mr. Adam Bodenschatz and Mr. J. R. Woolridge, the proud winners of these ribbons gave us a very interesting talk on the merit of their product and why the judge presented them with the ribbon instead of some other contestant. Adam Bodenschatz still feels as though he should have also been given the first prize for buckwheat comb honey as he knows that it was real 100% buckwheat honey in each cell for he fed nothing but 100% pure buckwheat honey to the colony that produced this comb honey. Better luck next time, Adam.

Our guest speaker, Mr. V. G. Milum, commented on the hard task that a judge of honey at the Fair has and also how some, in the past, have framed on a judge by using substitutes. In marketing honey in glassware, it seems as though the women folks prefer a squatty type of jar to a long thin jar as it will not tip over as easily and also a spoon will fit through neck of jar. Mr. Milum recommends that the Illinois Beekeeper adopt the U. S. grading rules for honey. In the state group exhibit at a Century of Progress the lack of honey displays shows the unorganized condition of the beekeepers in the various states. North Dakota seems to be the only honey-minded agricultural display in the group as they do show honey. The American Honey Institute is doing a tremendous amount of advertising for honey with the small funds available and due to the fact that they are advertising honey and not a certain brand of honey they have been able to get articles printed gratis by the leading publications.

Lunch was served with coffee and honey-ade, after which we toured to the apiary of Adam Bodenschatz just west of Lemont and had the privilege of viewing a model apiary of 180 hives idealy located for water, shade, and hives laid out so as to prevent drifting.

There was an approximate attendance of 125.

Respectfully submitted,
E. J. McCormick,
Sec'y and Treas.

Honey Jumbles

¾ cup honey, ¼ cup butter, 1¾ cups flour, 1 egg, 1 cup raisins, ⅛ teaspoon cloves, ½ teaspoon soda, ¾ teaspoon cinnamon.

Heat honey and butter until melted. Cool, add other ingredients and drop. Moderate oven. Nuts may be added.

Mrs. L. A. Doe,
Minnesota.

That Question of Taste and Color

By Thomas S. Davis
California

There are continuous controversies over color versus flavor of honey. Mostly they are complaints by producers who feel that the Government standard of color grading has injured the sale of their honey.

We believe that the United States honey grader was designed only as a color determining agent, and not to differentiate between the different kinds of honey. It is of service in determining the quality of honey gathered from a stipulated nectar source. For instance, alfalfa honey will vary eighty points or more on the grader, yet each will be as purely alfalfa nectar as can be gathered in that particular section.

It is generally known that altitude and latitude affect color and flavor of nectar from the same source. Invariably that produced at higher altitude is lighter in color and milder and more pleasant in flavor. Thus, at the present time, alfalfa honey from the high mountain valleys commands a price nearly double that of alfalfa honey produced near sea level—and justly so, we believe.

The American public has been taught to buy light honey. That color and flavor have become so closely associated in the eyes of the buying public is not built on fallacy. We know that the lighter the honey the finer the flavor, according to its nectar source. Now we make no attempt to say that white cotton or mesquite honey is of better flavor than amber honey of some other source, but we do say that white cotton, mesquite or any other honey is better flavor than honey of the same source that grades many points below on the U. S. grader. That, as we see it, is the real value of the honey color grader as a quality determining agent.

It has been my contention for years that honey bottlers and packers should be required to state the source of nectar plainly on packages, whether glass, tin, or comb. When a customer wants clover, orange, sage, or any other particular flavor that pleases him, he should know he is getting it and not an insipid blend or a flavor that may ruin further sales.

I am opposed to blending honey except within its own nectar source. Even then the object should be to raise the quality of the pack. The practice of blending cheaper honey with finer honey should be condemned.

Although we produce from fifty to sixty tons of honey each year, this is written from the consumer's angle as well as the producer's. We produce both dark and light honey, all from vegetable flowers. No attempt is made to sell it as anything but bakers' honey, although we have had some few people tell us that they liked it for table use. Inquiry revealed, however, that the honey these people used one year was somewhat less than negligible.

We (five in the family) use more than five hundred pounds per year on the table and do not produce a drop of it ourselves. We like good honey, and, strangely enough, what we consider good honey for our table is generally recognized as fine honey for the Pacific Coast — star thistle, orange, sage, fireweed, and high altitude white alfalfa and sweet clover.

We, an average American family, like these honeys for their flavor, although each member has his particular favorite. We have yet to find a dark honey that we would include in our diet in preference to any of the honeys just mentioned.

Is it out of order to suppose that any other average American family with the same knowledge of honey flavors is so far different as to prefer the darker and in many instances poorer flavored honeys? We do not think so.

No Best Race of Bees

I agree with the editor that there is no best race of bees provided we exclude the common black bee. I think the difference in bees consists entirely in selection and careful breeding. If a queen is reared under unfavorable conditions, she is worthless no matter to what race she belongs.

During past years, I often had Italian colonies headed by home bred queens that were superior in honey gathering to other colonies in the yard because they were bred under the most favorable conditions. I observed that queens reared during fruit bloom were worthless.

In 1918 I received a 1½-pound package of bees on May 18. I hived them on drawn combs and in June they reared a new queen which surpassed all other queens received from the same queen breeder.

On April 28, 1933, I received three (3-pound) packages of bees with queens from the South. Although none of them showed the least sign of mismating, there is one which surpasses the other two by far. This is a puzzle hard to solve. The difference in quality can hardly be attributed to negligence on the part of the queen breeder. The bees are Italians.

If our Italian queens could be bred up to the highest standard obtainable, they would scarcely be surpassed by any other race of bees, not even the so highly praised Caucasians.

Bro. Alphonse Veith,
Indiana.

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HAMBURG, LOUISIANA

Honey Exhibits at West Washington Fair

By C. M. Litteljohn
Washington

With the Honey prowess of the state strikingly exemplified in a wealth of honey products displayed, the Western Washington Fair will be held at Puyallup, Washington, September 18th to 24th, inclusive, this Autumn.

Honey, as usual, will be one of the important products of this northwest show, one of the few great agricultural fairs to be held this year on account of prolonged economic conditions. Contributing to the outstanding character of this Fair will be the bright and shining new slogan that will impel attention towards the displays, since fair officials have selected "Prosperity on Parade" as typifying the golden wealth of Western Washington.

Department G of the great Northwest fair this year will be devoted entirely to "Bees and Honey," and will be under the direction of F. A. Ross, of Puyallup, as Superintendent. In this extensive department, there will be Comb Honey, Extract Honey, Granulated Honey, Beeswax, Queens and their Bees, Fruit Canned with Honey, Pastry Prepared with Honey, and Honey Vinegar.

Careful scoring regulations have been drawn so that best points of each display may be recognized and rewarded by the substantial cash prizes, for individual displays as well as the grand sweepstakes, in which the maximum number of points that may be scored by any one exhibitor may be 1400.

As in previous years, attractiveness and originality of displays will entitle the exhibitor to the largest number of points. A premium, as always, is thus placed upon pleasing originality. Two hundred points may be scored for this attractiveness and originality of display, while only one hundred points will be allowed as a maximum in any other category, such as White Comb Honey in 24-pound sections; Amber Honey in similar sections; and Comb Honey in three-case sections.

Extracted honey classifications also allow for 100 points maximum. These comprise the Extracted White Honey in 24-pound glass; Extracted Light Amber Honey, and Extracted Honey in larger glass containers. Italian Queens and her bees may score a hundred, as well as the Golden Queen and hers, and any other queen as well. Only 50 points will be allowed for granulated honey; fruits canned with honey, or pastry prepared with honey. Beeswax and honey vinegar may each score 25 points maximum.

Many sub-divisions of scoring regulations have been planned for this well designed Fair, with considerable emphasis being placed on Marketability of the products, on neat, attractive and appetizing packages, and other factors that will help the honeyman create "S. A.," or sales appeal for his products.

5-Lb. Packs Develop Culinary Art

By C. M. Litteljohn
Washington

The many new five-pound pails of honey sold extensively at a low rate throughout the Pacific Northwest area are creating manifold new uses for honey in the home. From the ample tins there is poured honey for cornflakes or other serials, honey for toast, for making muffins, spreading over dishes or impregnating the menu throughout.

In many Northwest homes a little honey takes the place of several spoonfuls of sugar, thanks to the five-pound pack, being used where sugar or syrup were formerly used in a variety of new ways. Honey, unlike sugar, is non-fattening, and for this reason supplants the use of sugar so far as possible in some homes.

Five-pound pails of honey give greater scope to its use in many meals, and housewives find new ways of delightfully employing the product of the bees. Perhaps under the recovery program some of the more ancient uses may be recovered, and honey come to be appreciated once more among the Lares and Penantes as it was honored on the tables and at feasts of the ancients.

In an olden, more golden, era, honey was served with locusts, with oatmeal, and with spring onions. Breads were baked with honey, as some breads are again baked today, wines were flavored with it, fruits were sweetened, and meats cooked with it. In the course of time other substitutes were used and seemed to grow in favor.

Now, however, the pendulum swings back, and modern meals take on **new** zest and flavor as sweet substitutes are relegated to the background and honey comes into its own in the realm of the cuisine, for more extensive employment in the culinary arts.

Greater than the injunction: "eat more honey" or a thousand honeyed words, are the new five-pound packs featured at many of the grocery stores, widely distributed through both chains and independent grocer establishments, at popular prices, due to the ample packs. Silently, they reflect that honey should not be treated as a tit-bit but may be used more and more extensively in cooking and all manner of meal preparation, a real household staple and home necessity.

Crop and Market Report

Compiled by M. G. Dadant

For our October report, we asked our correspondents to answer the following questions.

1. How does total crop compare to 1932?
2. How is the demand developing?
3. Basis of jobbing sales.
4. How are retail prices compared to 1932?

Crop Compared to 1932

It was surprising to the writer to find so few states in which the crop this year would be the equal of the 1932 season.

Practically all of the New England states run from 30 to 80 per cent of last year and the same applies through New York and Maryland. North Carolina seems to have had a very desirable crop and Georgia which had a failure last year, has come out fairly well. Florida is really the big state of the entire forty-eight this year with double the crop of last year. Tennessee will run 100 per cent but the balance of the South will only run from 50 to 70 per cent of last year with Texas reporting chiefly about 50 per cent. This same situation holds true until we get to Arizona which will have a little better crop than last year.

Pennsylvania may be the equal of last year, but Ohio is almost a total failure. Indiana will have less than last year with Illinois perhaps normal or a little more as the fall crops have developed satisfactorily. Michigan is very spotted. Some reporters give 75 per cent of last year and others as high as 150 per cent. Wisconsin is a little better owing to the poor crop last year and Minnesota is very much better although spotted also. Iowa will have at least the equal of last year's crop with the western section showing much better than in 1932. Northwestern Missouri was indeed fortunate with a heavy crop.

When we come to the Plains States, both North and South Dakota have suffered greatly from the drought but a few sections in the north part of North Dakota have had at least the equal of last year's crop. Others will be much less and the entire state of South Dakota is deficient. Nebraska may equal their crop of last year through a good fall flow and Kansas conditions are about the same. In Oklahoma there will probably be 100 per cent.

Colorado is reporting much more honey than last year although some sections are very deficient. It is not a big crop, however. Last year was almost a total failure. Montana will be slightly better than last year with Idaho considerably less and the same ranges true of Wyoming, Nevada, with Utah almost up to 100 per cent of last year. Oregon and Washington are reporting normal conditions or a little better but California is having a very short crop.

In the Canadian provinces, Ontario, while not having a big crop has more than last year and Quebec the same. In the prairie provinces, Manitoba will have at least as big a crop as last year and Saskatchewan also and in British Columbia and Alberta the crop will be better.

Demand

The southern and southeastern states seem to be suffering from demand. Otherwise the demand is reported by our correspondents either as slow, fair or good with most of the reports being towards "fair." It is true that the weather has been unusually prolonged warm this fall which has tended away from a quickening of the demand for honey. However, we do believe that all in all our reporters are giving us the idea that the demand this year is better than a year ago.

Jobbing Sale

As is usual to be found during low prices, there is every sort of a price being offered for carloads of honey. We have heard of prices as low as 3 cents to 3½ cents for good white honey and some being sold as low as 4 cents per pound. In other cases the beekeepers are determined that they are going to get a better price this year and the jobbers have had to buy. We find one sale of a car of Michigan white honey at 6½ cents f.o.b. shipping point, one of Iowa at 5 cents and two or three of Minnesota at 4½ cents. We would say that the usual range of prices, however, where the seller is acquainted with the markets will run from 5 to 6 cents per pound for good white honey. It is our idea that the price is going to strengthen rather than weaken because the buyers seem to be rather active this year. Unfortunately, however, the foreign demand is extremely light. We see no reason, however, for a shipper if he is not in need of money to sell quickly unless he can get a satisfactory price say of at least 6 cents per pound for his honey f.o.b. the central territory which would be slightly less in the West.

Retail Prices Compared to 1932

There is a general tendency to raise the retail prices over 1932 but we do not believe that the rise in these prices has been as general as has the price on jobbing. In other words, beekeepers as a rule are not so inclined to follow the advances of the jobbing markets. In a few instances in the Southeast, prices are reported as being less than a year ago which is somewhat surprising. However, jobbing prices are also less and we find the buyers not bidding heavily on amber honey, expecting to get it for almost their own figure. We look for the conditions to improve as the season moves on.

We append below the price sheet as shown last month.

MINIMUM PRICE SUGGESTIONS FOR 1933-4	Car Lot White	Car Lot Amber	C. L. Comb No. 1	10 lbs. to Grocer	10 lbs. Retail	5 lbs. to Grocer	5 lbs. Retail	10 lbs. Comb Ret.	5 lbs. Comb Ret.	1-lb. Jar to Grocer	1-lb. Glass Retail	Comb to Grocer	Comb per Section
Northeast	.07	.05½	---	1.30	1.65	.70	.85	---	---	.18	.20	4.00	.20
Southeast	---	---	---	---	---	---	---	1.20	.65	---	---	---	---
South	.05	.04	---	---	---	---	---	1.20	.65	.15	.20	---	---
Texas	.05	.04	---	---	---	.50	.60	1.20	.65	---	---	---	---
Southwest	.05	.04	---	.75	.90	.50	.60	---	---	---	---	2.50	.15
North Central	.06	.05	3.00	.95	1.10	.50	.70	---	---	.17	.20	3.50	.20
Plains States	.05½	.04½	3.00	.80	1.00	.45	.55	---	.75	.17	.20	3.00	.15
Intermountain	.05	.04	2.75	.75	1.00	.40	.50	---	---	.17	.20	3.00	.14
Pacific Northwest	.05	.04	---	.75	1.00	.45	.55	---	---	---	---	---	---
California	.05	.04	---	.80	1.00	.45	.55	---	---	---	---	---	---
East Canada	.08	---	---	.90	1.10	.55	.65	---	---	---	---	---	---
West Canada	.07	---	---	.80	1.00	.45	.60	---	---	---	---	---	---

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HARDY NORTHERN ITALIAN QUEENS, 30 years' experience, personally reared, honest dealing, no disease. One queen, 35c. Four queens for $1.00. N. J. Smith. Coopersville, Mich.

QUEENS WHILE THEY LAST, 25c each, any number. J. M. Cutts & Sons, Rt. 1, Montgomery, Ala.

HIGH BRED CAUCASIAN QUEENS for October, untested, 50c each. Tested, $1.50 each. Select tested, $2.50 each. Bolling Bee Co., Bolling, Alabama.

HONEY FOR SALE

EXTRA FINE WHITE COMB HONEY, well filled. Also white extracted. Priced right. O. R. Matthew, Virginia, Ill.

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FOR SALE—White clover honey in 60-pound cans. None finer. Satisfaction guaranteed. J. F. Moore, Tiffin, Ohio.

HONEY FOR SALE—Keep your customers supplied with honey. We can furnish white and light amber honey at attractive prices. Packed in 60-lb., 10-lb. or 5-lb. tins. Dadant & Sons, Hamilton, Ill.

FOR SALE—Black Hills' Fancy White Extracted Honey in 60-lb. cans. Write for prices. Ernest W. Fox, Fruitdale, S. Dakota.

FOR SALE—Northern white, extracted and comb honey. M. W. Cousineau, Moorhead, Minn.

HONEY—We sell the best. Comb in carriers of eight cases each; extracted, basswood, buckwheat, sweet clover, white clover and light amber. A. I. Root Co. of Chicago, 224 West Huron St., Chicago, Illinois.

CHOICE Michigan Clover Honey. New 60's. David Running, Filion, Michigan.

CHOICE SWEET CLOVER HONEY, New, 60's. Thos. Atkinson, Rt. 5, Omaha, Nebr.

HONEY FOR SALE—Fine, white clover honey in 60-lb. cans. Write for prices. A. G. Kuersten, Burlington, Iowa.

NOW ON HAND, new crop, Clover Honey. Case to Carload in new 60-lb cans and cases or in any way you wish put up. Sample free. W. S. Earls & Son, New Canton, Ill.

FOR SALE—Well ripened, extracted honey gathered from clover, carlot or otherwise. Will be pleased to submit sample on request. Also section or shallow frame comb honey in local shipment. Colorado Honey Producers' Association, Denver, Colo.

HONEY—New crop clover, amber and buckwheat, both comb and extracted. F. J. Smith, Castalia, Ohio.

FOR SALE—Carload white honey in new sixties, also a quantity of amber. H. V. Hyde, Rockport, Illinois.

WHITE AND LIGHT AMBER extracted honey at fair price, sample 15c. Sylvester Legat, Spring Valley, Ill.

AMBER HONEY in 60's. 6 cents. Stauble Bros. Apiaries, Canton, N. Y.

HONEY—New crop of white clover comb. Write C. H. Phillips, Le Claire, Iowa.

WHITE HONEY in sixties. Case or carload. Satisfaction guaranteed. Harry C. Kirk, Armstrong, Iowa.

CHOICE CLOVER HONEY in 60's. Alfred Stutt, Creston, Iowa, R. 5.

FOR SALE—Comb honey, white, clover, also buckwheat. C. Holm, Genoa, Illinois.

LIGHT AMBER extracted 5½c case lots. Ten cases, 5c. A. J. Wilson, Hammond, N. Y.

WHITE CLOVER comb chunk honey, case six 5-lb. pails, $3.00. 60-lb. can extracted, $4.50. F. L. Barber, Lowville, New York.

EXTRA FINE white sweet clover honey at 6c in new sixties. Chas. S. Engle, 1610 4th Ave., South, Fargo, North Dakota.

WHITE CLOVER extracted in 60's, 5 and 10-pound pails and jars. No. 1 section and cut comb. All priced right. G. H. Ohmert, Dubuque, Iowa.

WHITE CLOVER COMB HONEY—Packed eight cases to the carrier. Earl Baker, Genoa, Illinois.

WHITE CLOVER extracted honey, sample 15c in stamps. Kalona Honey Co., Kalona, Iowa.

FANCY CLOVER extracted honey. New 60's. Oakdale Apiaries, Rush City, Minn.

HOWDY'S HONEY—White, clover extracted. New sixties. 6c per pound by carlot, 6½c for less, f.o.b. Ithaca. Sample free. Howard Potter, Ithaca, Michigan or 72 Perkins Hall, Cambridge, Massachusetts.

FINEST CLOVER HONEY, 6¾ cents new sixties. Sample 10 cents. C. P. Jankowski, Gurnee, Illinois.

FOR SALE—Choice clover extracted honey at 6c. Buckwheat and fall flower honey, 5c. New 60-pound cans and cases. Valley View Apiaries, Savanna, Illinois.

HONEY FOR SALE—It will be to your advantage to communicate with me before buying your next lot. Thos. D. Sherfick, Shoals, Indiana.

HONEY AND BEESWAX WANTED

WANTED—HONEY and BEESWAX. Beekeepers will find it to their advantage to communicate with us. Please send samples, state quantity available and prices. CALIFORNIA HONEY COMPANY, Hamilton & Company, Agents, 108 W. Sixth Street, Los Angeles, California.

WANTED—Comb and extracted honey. Mail sample, state quantity and price. Sherfick Farms, Shoals, Indiana.

250 CASES U. S. FANCY, white, clover comb honey. Howard Potter, 72 Perkins Hall, Cambridge, Mass.

WANTED—A car or less quantity of white honey in 60-lb. cans. Mail sample and quote lowest cash price for same. J. S. Bulkley, 816 Hazel St., Birmingham, Mich.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, Calif.

CARLOAD or less comb and extracted honey. Mail samples and delivered price. C. W. Aeppler Company, Oconomowoc, Wis.

WANTED—Carlots or straight truck loads of HONEY, cash on delivery. You will find us a most desirable outlet for your entire crop as we are the largest packers of fine honey in the Middle West. Send samples and prices. Payments made through the First National Bank of Chicago. W. F. Straub Laboratories, Inc, 5520 Northwest Highway, Chicago, Ill.

WANTED—Car white honey. Send sample and price. Dillon, Fruitridge, Mich.

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WANTED — Old style Dadant hives and equipment, with or without bees. Elva Kirlin, Warsaw, Illinois.

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SUPPLIES

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PORTER BEE ESCAPES save honey, money, avoid stings; faster most efficient. Sample 15c. R. & E. C. Porter, Lewistown, Ill.

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SAVE queens. Safin cages now 15c. Ten for $1.00. Allen Latham, Norwichtown, Connecticut.

BEEHIVE INSULATORS—Put an end to the muss and fuss of cellar wintering. Write—Standard Bee Specialty Co., Box 392-C, Eau Claire, Wisconsin.

FOR SALE—"Reif Rapped" cut comb cartons. Get started now for more profit and big sales volume. E. H. Reif, Kalona, Iowa.

FRAMES — Standard Hoffman, $29.50 per 1000. Send for cut rate price list today. Northern Bee & Honey Co., Osceola, Wis.

MISCELLANEOUS

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THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, Brockhill, London Road, Camberley, Surrey, England.

A History of Bee Culture in Pennsylvania

By Frederick Hahman
Pennsylvania

I enclose a clipping from "The Altoona Tribune." Hon. Henry W. Shoemaker of McElhaton, Clinton County, Pa., is principal owner of the Tribune and a close student of early Pennsylvania history, of Indian Lore, and of the flora and fauna of our state and is about the best authority on such matters we have in the state. Mr. Shoemaker is at present U. S. Minister to Bulgaria with headquarters at Sofia.

It is generally conceded that honey bees are not natives of North America but I do not recall any writing about who actually brought them here from Europe. The Swedes were the earliest colonists on the banks of the Delaware, settling there about forty years before the coming of William Penn. Pennsylvania was covered by great stretches of primeval forests of white pine and hemlock, especially west of the Susquehanna River. These evergreen trees, where the sunlight did not penetrate and the storms of winter passed harmlessly overhead, afforded ideal conditions for the increase of runaway swarms of bees and for their multiplication.

Before the coming of William Penn, the Swedes were much harrassed by the Dutch who settled along the Hudson and who were generally regarded as a cruel and grasping lot. They brought over no bees as far as I can find out. The numerous population known as the Pennsylvania Dutch were not from Holland. They are all of German origin.

I wonder if those bees brought over by the Swedes reported in this clipping, were the progenitors of all the wild bees that overspread our continent. The clipping follows:

"It is said that the Swedish settlers were the first to bring bees to what is now Pennsylvania, about 1638. They were black bees of the type later know as German bees and they became the ancestors of most of the wild bees of Pennsylvania.

"Though the Indians were fond of the ground burrowing bumble bee's honey, they regarded the black bees with terror as when they saw a swarm, they knew the white men were not far distant. White men were pictured as being covered with black bees which bore some mysterious relationship to the death-dealing black leaden bullets fired by their flintlocks at their unhappy red foes.

"Later the same German bees became known as wild or 'Indian' bees and among later settlers as 'smutt' bees and they were the earliest type of bees cared for by the Pennsylvania Dutch and Huguenots.

"Gradually the black bees were wiped out by the introduction of Ligurian queens until all that remained of the blacks were in a wild state. The black bee, however, adapted itself more perfectly to backwoods conditions than did its more refined Italian successor.

"In 1929 a swarm of German black bees unexpectedly arrived at my apiary immediately after I had expressed a desire to possess a 'scap' of these ancient honey gatherers. They quickly made themselves at home and seemed more friendly and intelligent than the more modern strains of bees. What a story they could tell of two hundred years in primeval forests before their return to civilization!

"According to old Tommy Simcox, a famous Clinton County beemaster, the early Huguenots in the West Branch Valley were wont to start upstream with their bees on flatboats every spring, travelling by night so as not to excite the bees and anchoring by flowery glades by day, each day giving their swarms a new and delicious pasturage. By the time they reached 'Les Fourchetts,' or the Forks as what is now known as Keating was called, the weight of the honey lowered the boat to the water's edge, and the return journey began. Old Adam Kres, Jacob Carnes, Michel Hulin, Moise Godeshal and Francos Bastress were among these 'voyageurs des abeilles' who made these flowery journeys annually."

The Stingless Bees

Long have beekeepers been interested in the stingless bees of the tropics but little information has been available concerning them. Many such will be interested in the recent book, "The Jungle Bees and Wasps of Barro Colorado Island" by Phil Rau. The book contains 324 pages printed on good paper, is cloth bound and well illustrated. It contains a large amount of interesting material about the tropics and especially concerning the bees and wasps of that region. The Island where the studies were made is in Panama where conditions to a man from the states are new and strange.

Since stingless bees are of special interest to our readers it is my purpose to confine my attention to a review of that part of the book devoted to them.

The author states, "The task of opening a nest full of stingless bees is trying enough to put the bravest to flight; only with a net over the face can one pick away these coverings bit by bit and inspect the nest."

"When one approaches a nest they swarm out all over one. Wheeler complains that they have a penchant for getting into the eyes, ears and nostrils, and crawling through the beard if one has one, but I cannot forgive them their insolent way of clinging with rasping claws and dragging their unclean bodies over the cherished spot where one's hair should be. Their rasping mandibles may seem harmless, but they actually bite viciously wherever they can find a tender fold of the skin."

Those of us who have dreamed of keeping stingless bees will thus find that we might not gain so much for all writers concerning them indicate that they are fully as unpleasant to manage as the well known cousins with their efficient stings.

"Trigona nest material, wax combined with foreign substances is called cerumen. The wax is secreted only between the dorsal segments and is produced by the males as well as the workers—the one case in which a male Hymenopteron seems to perform a useful social function. The workers collect not only nectar and pollen and sticky plant exudations for food but one species is said even to eat meat."

"There is but one queen in a colony, although a number of young daughter queens are tolerated. New colonies are formed by swarming from time to time. The old queen is so obese and heavy with eggs and her wings are so weak, that she cannot leave the nest after it is established."

"In all the nests observed on the Island, the orifice was guarded by a detachment of workers and several species closed the opening at night."

"In the Panama Trigona nests examined, the nest cavity consisted of two parts, one for the brood and one for the storage of honey and pollen. As in the nests of the social wasps the combs containing the brood are in horizontal layers, one above the other, attached by short props one to the other; but the young in the brood cells are in the position of heads upward, whereas in the wasps all are heads down."

"The honey and pollen pots are usually cylindrical but sometimes pear shaped, and are usually an inch tall by one-half to three-quarters inch wide. They are placed in the bottom of the cavity below the brood combs."

Beside the stingless bees the author describes numerous wasps of the tropics and brings together a fund of information not elsewhere available. I would suggest that all students of bees will find much of interest in the volume. All teachers of entomology should have it or ask that it be placed in the department library. It can be had either from the author, Phil Rau, Kirkwood, Missouri, or from the American Bee Journal. Price is $2.75. Frank C. Pellett.

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American Bee Journal
Hamilton, Illinois

Big Hives Best in the Long Run

By Walter H. Hull
Virginia

IN regard to size of brood chamber, taken up by Wendell T. Card in the December American Bee Journal, I have been leaning toward the larger brood chamber—specifically, the modified Dadant — satisfied that it would give better returns with less expense. That being the case, what should happen but that my best yard last year should turn out to be the one, and the only one, in which all single brood chambers were used. The other yards were mostly in two-story hives, but they swarmed just about as much as this one, and made less honey.

What is the explanation? Simply this, to my way of thinking: one swallow does not make a summer, nor one contrary experience prove that an accepted theory is unsound. Especially is this true where the factors entering into the case are so numerous and subject to such great variations as in beekeeping. So much depends on the particular strain of bees, the average age of queens, the individual condition of a majority of the queens, the weather day by day in spring, the amount of snow and ice in winter, the honeyflow the previous fall, the drought the previous summer, etc., to say nothing of the time supers were put on and other details of management during the season in question.

These variable factors may be stabilized to some extent by requeening and feeding and packing; but even when all these things are done they are not always done under ideal conditions nor, is it safe to say, in a perfect manner. Not that one should be too fussy about his work. I mention this merely to show that there are always plenty of reasons for variations in yield besides the size of brood chamber.

We might argue then that if a large brood chamber does best one year and a small brood chamber another year, why bother at all? If one is just as likely to prove best as the other then neither is worth going on the mat for—nor paying out much money to obtain. The salient point is that one is not "just as good" as the other. Though the small hive may prove best for one year, or a number of years, the fact remains that over a long period of years the large hive has proved its superiority.

For years the ten-frame hive was practically standard, and we recognized it as such. We used smaller hives to some extent and found them serviceable, perhaps preferable under special conditions; but since the establishment of the ten-frame hive as standard there has never been a time that it was in danger of being replaced by the eight-frame.

Meanwhile we were using larger hives also to some extent. Sometimes they proved better; sometimes, perhaps, not so good. But gradually as the years rolled by, each leaving its burden of evidence, this evidence piled up more and more in favor of the large hive. This has gone on until the ten-frame Langstroth hive has been superseded as standard, so far as total capacity is concerned. The size now recognized as best in the long run is from one and a half to twice that size. Where the ten-frame equipment is used this increased capacity is obtained by adding half stories or full stories, more or less at random, so that at present there is no recognized standard size of hive.

I had not intended to mention the Modified Dadant hive particularly, but it meets so perfectly the requirements as proved by beekeepers all over the country and throughout years of experience, that it cannot be ignored. It provides what is now recognized as the ideal capacity for best results, and provides it in a compact unit. With the so-called standard hive enlarged to the necessary size the brood chamber is cut directly in two, not to mention the disadvantage of having the hive in several parts that have to be stapled together every time it is moved, and torn apart before it can be inspected. It looks to me as if the Modified Dadant hive was coming into its own more fully than ever before.

[After over 50 years of comparative use we prefer the Dadant hive to all sizes of Langstroth.—Ed.]

How Big Must the Brood Nest Be?

By R. B. Manley
England

THE article by Mr. Card which appears in the December issue is an interesting return to an old subject.

It is, however, necessary to point out that more mistaken conclusions in beekeeping procedure have been based on this type of experiment than is generally supposed. The writer tells us that ONE colony during ONE season, confined to eight frames produced a greater profit to him than another colony which had the run of 20 frames.

This eight-frame colony gave no indication of swarming though worked for comb honey. Its queen, though not a great layer, produced enough bees to give a more profitable surplus than the other, though she

(the second) laid a great many more eggs and formed a much more powerful stock.

Now suppose, for the sake of argument, that the method of working these two queens had been reversed; that No. 1 queen had been allowed two sets of combs and No. 2 queen only a single 8-frame brood chamber; can we visualize what the result would have been? Does it not appear probable that No. 2 queen, restricted to 8 frames, would have swarmed? Might not No. 1 queen, allowed 20 combs, have done even better than she actually did?

In fact the case given by Mr. Card is one of those most interesting ones of a queen producing bees of really superlative honey-producing qualities which most beekeepers have met with now and again in their work. The point would seem to be that such queens are very desirable, but very rare. The well-established rule appears to be that for heavy yields of honey, a large force of workers is required and that there are to this, as to every rule, certain exceptions. One is that there are queens that are capable of very great prolificacy whose bees produce very little surplus honey and at the other extreme there is the exception of the queens which produce a rather small quantity of workers which, either because of exceptional working qualities or because they are possessed of great stamina which gives exceptionally long life, produce very heavy surplus stores in proportion to their numbers. The latter are always a paying proposition though exceedingly difficult to procure as their proclivities do not seem easy to perpetuate in breeding; the former are only too easy to breed and are the curse of modern beekeeping.

Far too much stress has been laid by breeders of queens on pure prolificacy and there is much to be done in breeding bees with stamina so that the workers shall live as long as possible. While prolificacy is of great importance, it is worse than useless if combined with lack of stamina. The long-lived worker will beat the short-lived every time and a comparatively weak colony composed of workers with innate constitutional vigour will always beat a colony three times their strength in production of surplus honey and much more so in the production of profit.

Mr. Card's experience was not due to the smallness of the number of workers in No. 1, but in their being bees of specially vigourous constitution. He will find that, if he should try the matter out with 50 colonies, 25 in eight-comb hives and 25 in Dadant, Jumbo, double eights or double tens, that his results will not then, over a period of years, bear out his present conclusions.

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The POSTSCRIPT

GOSSIP ABOUT THE OFFICE IN THE MAKING OF THE MAGAZINE

P. E. Crane writes from Vermont to suggest that the point of difference in yield of white clover mentioned in July Postscript, "is the point where the soil becomes deficient in lime." I quite agree with Crane that white clover will not yield much on soil deficient in lime, but in the region under discussion it does not yield on some soils which are well supplied with it. There is a decided change in soil type in a few miles between Council Bluffs and Atlantic, Iowa. Sweet clover yields well on both types, white clover apparently does not.

— : —

Crane also comments on the value of an old comb and raises an interesting point. He says, "While the bees polish out the cells before storing honey in them there is always likely to be small amounts of royal jelly left in them which mixes with the honey stored there. This royal jelly is one of the most potent protein foods in existence. In the small amounts there is a very considerable addition to the food value of the honey." Thus he places a special value on old combs not usually recognized and says that some doctors are willing to pay a premium for such honey.

— : —

If any beekeeper has had experience with the new forage crop Lespedeza sericea as a bee pasture I will appreciate information as to its value. I have raised the Korean lespedeza and never saw a bee on it. Several have inquired as to the value of sericea as bee pasture.

— : —

With reference to the oft discussed question as to whether bees move eggs, Alfred H. Pering in a recent letter mentions a case where the hole in a queen cage was stopped with fibre and prevented the escape of the queen. The bees fed her liberally and carried her eggs to the two frames below and cared for them until there were eggs and larvae in all stages, on the inside surfaces of both combs. The two inside surfaces were pretty well filled with none found elsewhere. There were two queen cells near the bottom of one frame.

— : —

H. I. Perrin of Sargent, Nebraska complains that part of the economic trouble in which the world finds itself just now is due to the fact that some are in position to make a charge on commercial transactions without adding anything to the intrinsic value of the product which passes through their hands. If this continues in sufficient volume such an individual piles up wealth far in excess of his ability to use.

This unequal distribution of wealth is receiving much study on the part of economists just now. No satisfactory solution has as yet been offered but the indications are that we are in for a change of some kind. There is much hard thinking going on while scraping the propolis off their fingers by the boys in the bee yard.

— : —

With reference to the note on persimmon in the August Postscript, V. E. DeHart who lives in the persimmon country in North Carolina writes to call my attention to the fact that a fruitful tree has a large blossom with spreading petals similar to the flower of an apple while the unfruitful one is a small globe shaped blossom like that of the sourwood. The flowers on my tree fit the latter description.

— : —

In the new deal there are few aces in the hands of the farmer. The cards are stacked against him and he can expect to work two hours to pay for the product of one hour's labor in the things he buys. At that I had rather work long hours on the farm than short ones in a factory.

— : —

C. M. Ewing writes to say that the Bonanza everbearing strawberry was still bearing in the San Joaquin Valley, California, the last of July with temperatures 107 when other varieties had finished in May. He says it makes no runners but keeps on fruiting. Increase is hard to get with the everbearing berries. At the farm we have trouble keeping the flowers picked from the Mastodon so as to get enough runners for increase.

— : —

What a different world we live in than we occupied but a few short years ago. I have chanced upon the picture of the small group of beekeepers who came together at the first convention of the Iowa Beekeepers' Association. It appeared in the January, 1913, issue of this magazine. In the front row I find Doctor Bonney, Hamlin B. Miller, Eugene Secor, Simon Snyder, J. L. Strong and F. W. Hall—all prominent men who have since passed on. If the facts were known it is probable that nearly half of that group have died. In the bee magazines of twenty years ago the names of these men appeared frequently. In twenty years from now a very different group will be on the stage of action.

— : —

In chapter ten of "Practical Queen Rearing" is given a plan of combining mating of young queens with making of increase. It had done so well for me that I thought I had something good when it was offered. Numerous correspondents have written about it, some have been enthusiastic about the success of the plan while others have failed entirely.

In the same volume of the Journal in which the other items appear is a letter from Doctor C. C. Miller telling how he had been delighted to discover how he could mate his young queens upstairs over the colony while it went about its regular business. He reported however, that later on the same plan had failed so often that he gave it up. So the older we grow, the less we know "for sure."

— : —

They tell us "that there is nothing new under the sun" and a review of bee publications convinces one that it is so. So much of our discussion is but a repetition of that of other days. In recent months there has been much about the Caucasian bees. Of late, Prof. Paddock has been the principal champion of this race. Twenty years ago J. J. Wilder was writing voluminously concerning them. We find dozens of references. With all the argument the Italians have held their own and are today by all odds the most popular race.

— : —

The problem of insect control becomes increasingly serious. With an army of entomologists on the job the losses continue unabated. In the effort to control numerous pests the application of poison has made things very difficult for the beekeeper. In many formerly good bee sections we now find but few commercial honey men left. First we heard of heavy losses of bees through the spraying of fruit trees, then complaint began to be heard in the cotton districts. Now we learn that in some western states there has been heavy mortality among bees from the spraying of potatoes. We beekeepers feel that our industry is worthy of protection and insist that better methods of control be found. We can scarcely consent to be put entirely out of business as bee men have been in too many places.

— : —

I am just old fashioned enough to believe that the way out of present economic difficulties is by the old time method of thrift and hustle. The propaganda to buy now is well placed if we buy what we need, but extravagance is what got us into this mess and it will take the opposite of that to get us out. We cannot make more by doing less. The wealth of the nation is measured in goods and if we destroy part of our products we have that much less wealth. There is no escaping that fact. Money is only of value when exchanged for goods. Too many lose sight of the fact that it is a mere medium of exchange. I would prefer a big honey crop at a low price per pound to a small one at a high price. There are still plenty of pancakes that lack the honey spread.

FRANK C. PELLETT.

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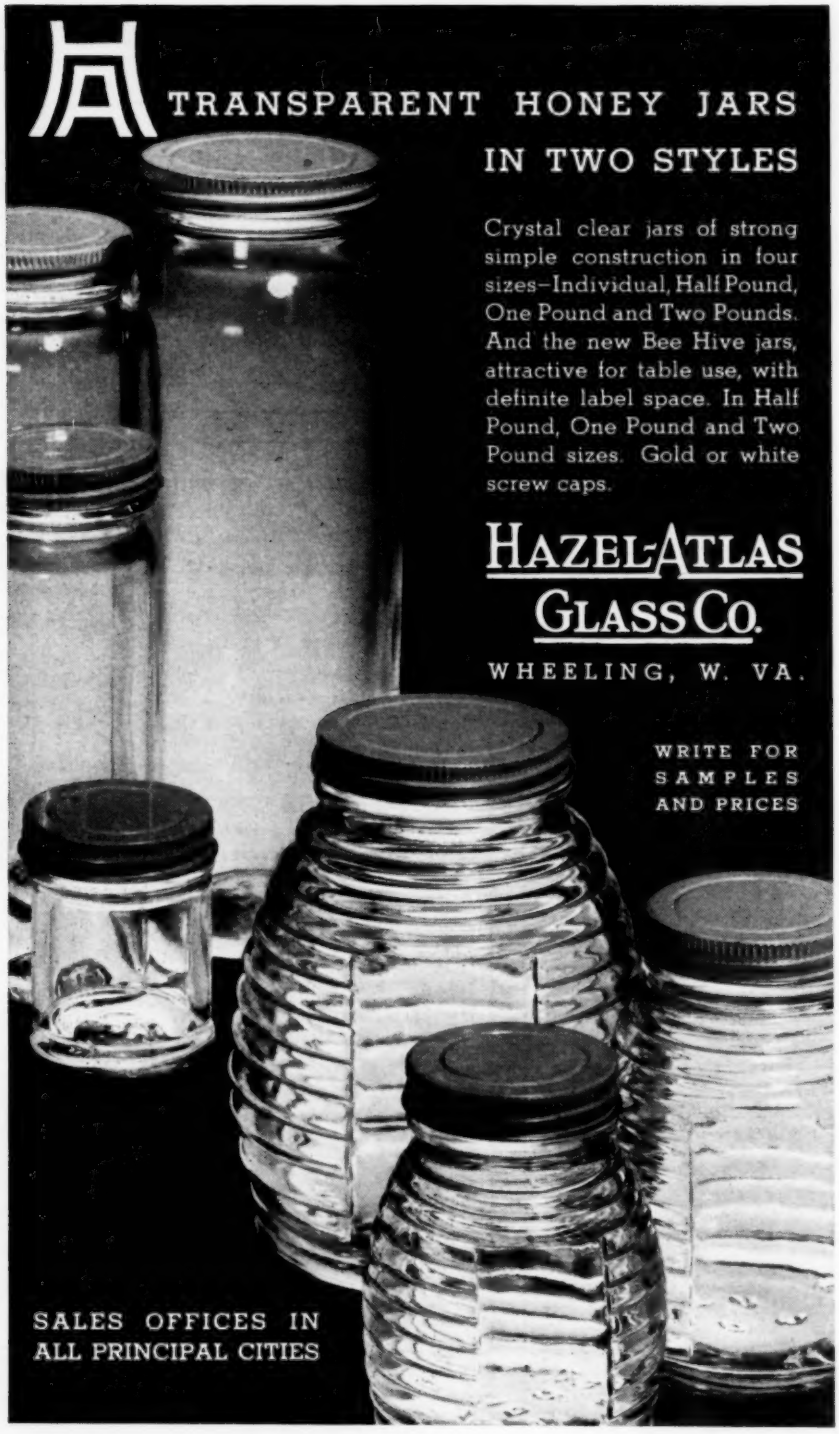
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